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ABSTRACT

A study examined Chiat/Day inc. Advertising's team-based virtual office in which work could occur at any location inside or outside the office at any time. Three sites used three workplace strategies: full virtual (FV), modified virtual (MV), and conventional (C). Interviews, observations, and archival data were used to assess project teams doing similar work at each site. Findings indicated that the greater number of employees and larger office size of the MV office with multiple floors limited interaction outside of teams and strategic business units. The FV and C offices with smaller staffs on a single floor made interaction with other teams easier. Common rooms led to better communication, coordination, and team spirit and helped reduce hierarchical interaction patterns. Activity hubs fitted out with cafeteria-like furniture and food and beverages were valued spaces for working and informal socializing. Dedicated spaces in the FV for support disciplines and creative teams enhanced communication and collaboration. Technology was used primarily for keeping in touch and limiting paper copies. The small, private rooms did not provide adequate opportunities for concentration and creative concept development. Implementation of the virtual office did not drastically change the work process. The more significant change included removal of assigned workstations and addition of dedicated project rooms that enhanced team identity and cross-functional communication. (Contains 48 references.) (YLB)

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ED 418 277

Workscape 21

The Ecology of New Ways of Working

The Ecology of Collaborative Work

Franklin Becker
Kristen L. Quinn
Carolyn M. Tennessen

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Foreword

The International Workplace Studies Program is a research program based at Cornell University in Ithaca, New York. The program was launched in 1989 and is supported by a consortium of private and public sector organizations in the United States, the United Kingdom, Europe, and Japan. The IWSP mission is to generate research-based information related to the planning, design, and management of facilities that contribute to the development of more competitive and effective organizations.

Acknowledgments

The authors wish to express their sincere gratitude to Chiat/Day inc. Advertising for serving as the focus for this research. The assistance of our contacts at each Chiat/Day office that hosted this research has been invaluable: Laurie Coots and Cathy Cholackian at Los Angeles, Eve Luppert and Rosanne McNulty at New York City, and Virginia Wickstrom at Toronto. In particular, we appreciate the extra time Laurie Coots spent reviewing this report and her insightful comments. We would also like to thank the many individuals who participated as interviewees. Many thanks also to Lisa Dahl, IWSP Research Coordinator, for her help in revising and editing this report. Finally, we would like to thank our consortium sponsor organizations for their ongoing support of the International Workplace Studies Program, which made this research possible.

Executive Summary

Over the past decade organizations have looked to more team and collaborative work processes as one means of responding to the need to speed the product development cycle and generate more innovative products and services. While the concept of teamwork makes sense intuitively, it has proven to be difficult to implement successfully. Organizations continue to experiment with how to enable teams to most effectively work together. One element of this continuing exploration has been to experiment with new ways of physically collocating and organizing teams in space and time.

This study focused on a workplace strategy in which an advertising agency implemented a team-based "virtual" office to support an organizational shift from individual departments serving specific clients to strategic business units serving a specific industry (or in some cases, a large client). The workplace strategy's key characteristic was that all the employees were able to work anywhere, inside or outside of the office, at any time. This freedom from space and time constraints was coupled with a shift from individually assigned offices to unassigned or nonterritorial offices, ones in which each employee sits at whatever work area, desk, or office is unoccupied when they want to use it. Our goal was to learn how such a workplace strategy affected how teams functioned.

Research Questions

The specific research questions addressed in this study included:

- How do different forms of a virtual workplace strategy, where location and time of work are flexible and relaxed, affect people's ability to work as a team? More specifically, how are tasks such as communication, meetings, problem-solving, and coordination accomplished in various virtual officing approaches, compared to a more conventional office?

- Does the workplace strategy influence the work processes? For example, does the strategy dictate how certain tasks are completed?

- How do work patterns vary as a result of the workplace strategy? Does working virtually hinder employees' ability to work as a project team?

- How, where and when does learning occur under different forms of virtual officing compared to a more conventional office environment? What factors influence that learning?

- To what extent can the workplace strategy promote informal communication and learning, idea generation, and cross-functional communication?

Research Site and Sample

Three of Chiat/Day inc. Advertising's offices in North America were the research sites.[1] Chiat/Day initiated a corporate-wide effort in 1993 to move towards a virtual environment—one in which work could occur at any location inside or outside the office and at any time. The strategy involved two primary components: One emphasized a team focus and the other transformed the physical settings; that is, the nature of the settings and technology and how they were allocated and used. In the study time frame, two of the sites had implemented changes to both the organizational structure and the workplace (in different ways); the third site had initiated changes in the organizational structure, leaving the workplace untouched.

The existence of three distinct sites with varied workplace strategies within the same organization, allowed us to explore how workplace variations affected teams. For the purposes of this report, these strategies were referred to as Full Virtual, Modified Virtual and Conventional.

Comparison of Research Sites*

Conventional Strategy	Full Virtual Strategy	Modified Virtual Strategy
• Assigned workstations • Limited team areas/common spaces • No remote capabilities	• Nonterritorial office (no exceptions) • Remote capabilities • Team areas/common spaces	• Assigned and nonterritorial areas (exceptions over time) • Remote capabilities • Team areas/common spaces

** This table appears as Table 1 from the Methodology section of the main report.*

Using interviews, observations, and archival data, representative project teams doing similar work at each of the sites were assessed

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[1] As the data collection for our study was nearing completion, Chiat/Day was acquired by a public company, Omnicom, and merged with its TBWA network. Chiat/Day is now called TBWA Chiat/Day but will be referred to as Chiat/Day throughout this report, reflecting its status during the time of this research.

Key Findings

Design

Size and Layout

- The greater number of employees (approximately 350) and larger office size of the Modified Virtual (LA) office, in combination with multiple floors, served to limit interaction outside of teams and particularly outside strategic business units (SBUs). Most individuals worked in or around their project room and did not move around the office or onto different floors. As a result, employees felt they knew less of their coworkers, socialized less, and knew less of what was going on throughout the office.

- The Full Virtual (NYC) and Conventional (Toronto) offices, both of which had smaller staff populations (approximately 150) and were on a single floor, made interaction with coworkers from various teams easier. Employees became involved in conversations or meetings with people outside their own teams, including at times, the Office President and/or the Creative Director. In this way they got a better feel for what was going on across the agency and for how the entire project process worked.

Project Rooms

- Project rooms had a significant effect on how teams functioned. In the new "virtual" office arrangements core team members (Account Services, Account Planners, and to a lesser extent Media Planners and "Creatives") were assigned to a common project room. Even more so than in the traditional office, where team members' cubicles were grouped, employees working out of the project rooms felt that they had much better communication, and that this communication resulted in better coordination and team spirit among all disciplines.

- Having a common project room in which current project information was posted on the walls made it easier for Creatives, and those team members in a support role, to communicate with each other and to keep abreast of project developments.

- A common room helped reduce hierarchical interaction patterns. Team members at different organizational levels and ranks felt that they had greater access to one another than in their previous more conventional environment. Instead of the Group Account Director sitting in a cubicle next to a Senior Planner, he/she worked along with all the junior team members in the project room. Working in visual proximity created increased opportunities for young staff to "learn by observation" from older, more experienced staff.

- In comparison to employees in the Modified Virtual office, Full Virtual employees spent less time working together in their project room. They used it more for solitary work than as the primary work location for core team members. One consequence reported was that of not learning as much about their jobs as compared with staff in the Modified Virtual office who used the project room more as a team.

Clubhouse

- The Clubhouse (activity hubs fitted out with cafeteria-like furniture and food and beverages) were valued spaces, used both for working and informal socializing.
- At New York's Full Virtual office, employees felt that the Clubhouse was less social than it could or should have been, contributing to a sense that the office was less social than it used to be. Its central location and heavy use as a work location by key support staff contributed to this (see below).
- In the Full Virtual office, the Clubhouse's central location, through which almost everyone walked upon coming into the office, made it an ideal place to see and contact others. For this reason, employees who needed to coordinate people and activities, like Group Account Directors responsible for multiple and dispersed project rooms, often chose to work in this space.

Dedicated Spaces

- LA's virtual office was modified by the provision of dedicated workspaces for the support disciplines and Creatives. This collocation of disciplines enhanced communication and collaboration.
- The dedicated spaces reduced the need to physically search the entire office when needing to meet with someone from one of the collocated disciplines. (Wireless phones, which could have been used to identify where someone was presently located, were not used regularly for this purpose.)
- The collocation also enhanced communication and learning from others within one's own discipline.

Provision of Spaces to Concentrate

- Although the virtual offices had small enclosed (i.e., private) rooms which could be used on a "first come, first served" basis by individuals or small groups of people, employees felt that there was no place within the office that they could really "get away" and think. This was especially true of Creatives. Even in the Modified Virtual office, where the Creatives had their own dedicated open plan area, this area was considered too loud and open to interruption.

- Each office also had a library which could be used for individual quiet work. However, because the space was neither reserved for silent activities (like reading) typical in a conventional library, nor intended only for lively brainstorming sessions and meetings, it served neither purpose particularly well.

Technology

- The available technology, including laptop computers with high speed modems, was not heavily exploited for remote work or collaboration. It was used primarily for keeping in touch with one another and for limiting the need for paper copies of everything.

- The wireless telephone system was used as a resource for finding and/or leaving messages for other's within the office (but it did not eliminate people searching for others by walking around the office; in part, because individuals did not reliably carry them as they moved around the office).

- The client-server computer environment enabled individuals to file everything related to the account in a central location, accessible by all. This appeared to be more heavily relied upon in the Full Virtual environment.

- Laptop computers connected to the central server and an e-mail system allowed those who were traveling to remain in touch with their team.

Informal Work Practices

- One of the reasons even the small "quiet" and meeting rooms were not viewed as providing adequate opportunities for concentration and creative concept development was an informal norm that made it acceptable to interrupt anyone working in the office. As a result, people went home or to other locations when they needed to concentrate.

- In the Full Virtual office there appeared to be more "peer policing" than in the Modified Virtual office. In the former, nesters (people who used the same place every day and left their personal materials in it) were asked to find a new place to work and their belongings were more likely to be moved out of the way when left for long periods.

- There was a greater reliance in the Modified Virtual office on informal spontaneous interaction (rather than formal meetings) for project coordination. One consequence was that individuals not physically present when a policy was made or modified, or certain information shared, felt "left out of the loop".

Conclusion

Overall Chiat/Day's implementation of the virtual office had not drastically changed the work process. Prior to the new workplace strategy, employees already had considerable flexibility regarding where and when they could work. The more significant change created by Chiat/Day's "team architecture" included the removal of assigned workstations and the addition of dedicated project rooms. These enhanced team identity and cross-functional communication.

One of the greatest lessons of this study was that changing the office environment affects a whole range of work processes. In combination with other environmental aspects such as office size or layout, some job functions may be enhanced while others are not. Ironically, for example, the adaptive use of the Clubhouse in NYC as a place to coordinate activities reduced its value as a purely social setting, a place to get away from the job and relax awhile. Adaptations then, should not be discouraged or viewed as a sign of poor planning. They should be considered a natural part of the evolving nature of a dynamic workplace.

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Introduction

Companies today, to maintain or improve their competitive edge, are actively pursuing ways of reducing operating costs, while at the same time improving product quality, streamlining development, and enhancing service. To achieve these goals, managers are reexamining the ways they conduct business and asking how, where, and when employees accomplish the best work.

Emerging Workplace Strategies

Organizational Structure

To increase product quality and overall efficiency, promote communication, and encourage collaboration, businesses are developing new organizational models that stress teamwork (Parker, 1994); form flatter organizational hierarchies (Peters, 1988; Tjosvold, 1991); and empower employees (Hammer & Champy, 1993). Teams are being used widely in diverse industries, often with very positive results (Gordon, 1992; Wellins, Wilson, Katz, Laughlin, Day & Price, 1990).

Environment and Technology

Alternative work practices including telecommuting, teleworking, nonterritorial and virtual officing, and the use of team spaces (Becker, Quinn, Rappaport & Sims, 1993) increasingly are replacing traditional offices. At the same time companies are turning to technologies such as e-mail, voicemail, pagers, videoconferencing, and simultaneous document manipulation which support the connectivity needs of the more mobile employee.

Research Purpose

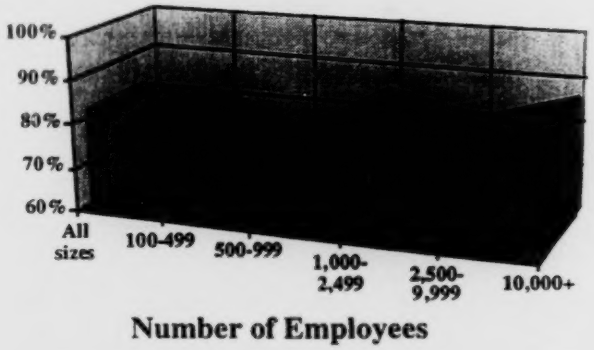
Although teams have been the subject of much recent research work, very little is understood about how teams function in the "real world" of the workplace. Nor is there an understanding of how different types of workscapes, particularly new work strategies such as nonterritorial offices and mobile work, influence the way teams function. This study examined the influence of the workscape on teamwork by studying teams at multiple offices within the same organization. The offices operated under the same team architecture but in different environments ranging from an open plan to a completely virtual office. This report reviews the current literature to understand teamwork issues, then presents observations of a "real" organization to determine the influence of workplace on the team concept.

Literature Review

> Confronted with intense competition, shareholder and employee demands, and global possibilities, managers are reinventing their profession and transforming their companies. They involve employees through participative management and quality circles; circumvent the traditional hierarchy, push decision making deep down into the organizations, and make their organizations flatter; form partnerships with suppliers to reduce inventory costs and serve customers effectively; strike up alliances with foreign companies to penetrate new markets and with competitors to combine research and development efforts; and restructure to reduce costs and put business units closer to their customers. Mechanical, bureaucratic, impersonal ways of working are giving way to lean, entrepreneurial ones. *Teamwork* is needed to make these new ways of managing and organizing effective.
>
> (Tjosvold, 1991, p.1)

For many years, "teamwork" has been a major "buzzword" in organizations. While researchers disagree on one comprehensive definition for what constitutes a team, it is generally agreed that members of teams work toward a common goal–the development of a product, the exploration of a concept or strategy, or solving a specific problem–and are highly interdependent for individual task completion (Parker, 1994; Rosen, 1989; Tjosvold, 1991).

Currently the number of organizations in the United States applying the team approach is growing tremendously. And it is growing in industries as diverse as manufacturing, health care, consulting, research and development (R&D), advertising and education. *Training* magazine's 1992 *Industry Report* survey found that 82% of U.S. organizations with more than 100 employees have assigned a portion of their employees to a working group identified as a team (Gordon, 1992). These organizations do not refer to just one or two small teams; of those that report having teams, 53% of all employees are members.



Source: Gordon, J. (1992, October). Work teams: How far have they come? *Training*, pp. 59-65.

Figure 1: Percent of U.S. organizations using teams by organizational size.

Successful Teams

But why teams? While forming teams has both benefits and drawbacks, teams tend to be more effective than individuals working alone (Parker, 1994; Rosen, 1989; Tjosvold, 1991). Teams have the ability to, at times, surpass the talents of the individuals and accomplish complex tasks (Parker, 1994; Rosen, 1989).

- A General Electric team of the mid 1980s formed to fight competitive pressures in its circuit breaker business. Results of the cross-functional team, consisting of people in manufacturing, design, and marketing were:
    - Order backlogs reduced from two months to two days;
    - Productivity increased 20% in one year;
    - Manufacturing costs dropped 30%—$5.5 million—in one year; and
    - Delivery speed was reduced from three weeks to three days (Dumaine, 1989).
- In response to a need for more accurate reporting of delivery dates, Xerox assigned a cross-functional team to design a tracking method for the distribution process. As a result of the new process, the team—employees from distribution, accounting, and sales—boosted customer service ratings from 70% to 90%. Xerox applied this approach to inventory problems, with subsequent inventory cost reductions of $200 million per year (Dumaine, 1991).
- AT&T developed a new cordless telephone, the 4200, in 1988. By using a team approach, AT&T cut its product development time in half—from two years to just one—and was able to introduce the new technology to the market earlier than its competitors (Dumaine, 1989).

Organizational impact of teams ranges from improving productivity to increasing customer service to improving employee morale. According to *Training's Industry Report*, at least 80% of the organizations using teams reported that teams improved the quality of products or services, improved the level of customer service, improved productivity, and contributed to increasing profits (Gordon, 1992). A 1990 survey by *Industry Week* reported similar findings, with executives quoting improved quality, improved productivity, heightened morale, reduced management size, and lower labor costs as the biggest benefits to implementing teams (Wellins, et al., 1990).

Creating teams, however is not a "quick fix" to today's problems. Implementing teams requires intensive training, team building, time, and organizational support (Guest, 1986; Parker, 1994; Rosen, 1989). Teams may be various sizes, have different functions, decision-making processes, life space, membership, and be in different developmental phases. Each team variation may need different supports and skills at different stages in the process. And, because teams differ substantially, it is difficult to conduct research to determine what factors are most effective in supporting teams. The current literature highlights some qualities that experts believe contribute to effective teams, including team type, communication and environment.

Functional vs. Cross-Functional Teams

Organizations today include many different teams, from temporary task force teams to long-standing self-directed teams.

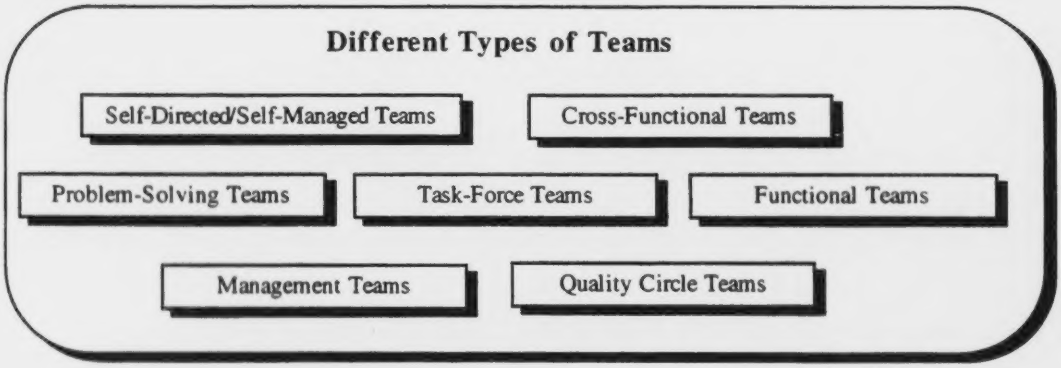


Figure 2: Types of teams.

Until the last decade, managers traditionally approached a complex problem like product development by breaking it into smaller individual parts, and then later recombining the individual efforts into a whole (Van de Ven, 1986). For example, to develop a new portable CD player, the marketing department of an organization might first determine customer needs and perceptions. The R&D department would then select the most appropriate design. They would then give the design to production engineers to build and test the product, continuing until the new product was completed. The premise behind management of part-whole relationships—also called the "relay race model", being similar to one runner handing a baton to the next—is that the "sum of the parts will be greater than the whole" (Becker, 1990; Takeuchi & Nonaka, 1986; Van de Ven, 1986).

Team structures in this strategy tend to be functional, in which membership is based on the team's particular area of expertise. Functional teams are particularly effective in promoting disciplinary interaction, an important component in specialties that change rapidly (Allen, 1977). In the computer industry, where new advances are reported daily, it may be detrimental to separate certain specialists from their colleagues. Other advantages of using functional teams are that employees often know the other members of the team, share similar background and education, or have collaborated in the past (Parker, 1994).

The functional team model, popular in the past, is now shifting. The "relay race model" of linear product development has serious disadvantages that could ultimately destroy the organization:

- Coordination and scheduling become complex problems. On a complex project, it can be problematic to determine ownership of or location of information and to track project status. If an employee is appointed project coordinator, he/she has the difficult task of managing separate departments with different chains of command and distinct loyalties (Allen, 1977).

- A lack of continuity is noticeable from one developmental stage to the next.

> Without some continuity of personnel, there is no "memory" for the project, no recollection of why things were done in a particular way. With no one from any of the "downstream" parts of the organization involved in the early decisions, these decisions may result in situations that are totally incompatible with the requirements of later stages (Becker, 1990, p. 238).

- People often lack a shared vision and commitment to the project. The participants may be more focused on their own task than on overall project goals.

- Functional teams can waste time and effort as ideas and solutions are thrown back and forth over the disciplinary fences (Becker & Steele, 1995).

The Rugby Model

Cross-functional teams are one team approach embraced by organizations in the current business climate. While the concept of cross-functionality existed for many years worldwide (Orsburn, Moran, Musselwhite & Zenger, 1990), only in the last two decades has use of teams escalated in the United States. Today, team structure and usage differs from those teams of the past. Teams today possess greater levels of responsibility and authority. Team members are often assigned to multiple teams and thus have multiple—and sometimes conflicting—loyalties, and members may have a variety of different skills and disciplines (Ancona & Caldwell, 1990b).

Van de Ven (1986) contends that in many cases, when managers try to break a larger project down into smaller parts, not only is the sum of the parts less than the whole, but rather the sum of the parts is a meaningless jumble. Van de Ven suggests that, instead of breaking down product development into functional areas, organizations combine functions that influence the total development cycle, such as research and development, manufacturing, and marketing. Using this strategy, organizations witness parallel or simultaneous development, rather than linear development.

Called simultaneous engineering, concurrent design, or the "rugby model" (Becker, 1990; Becker & Steele 1995; Funk; 1992; Takeuchi & Nonaka, 1986), the premise is "to bring all the players in the process together as a team at the project's inception" (Becker & Steele 1995, p. 70). The very definition of the rugby model requires the use of cross-functional teams, people representing the full range of functions or disciplines necessary to complete the "relay race" are combined in one team responsible for the entire project. The model emphasizes teamwork that cuts across discipline and departmental boundaries, on free-flowing and serendipitous face-to-face communication, on clear goals reached by taking advantage of unexpected ideas and opportunities, and on information and ideas circulating among all players from the very beginning of the process and not in some preordained sequence (Becker, 1990, p. 237).

Using cross-functional teams addresses the many drawbacks of functional teams operating under the relay race model and provides other benefits to the organization.

- Cross-functional teams reduce the time taken to complete tasks, particularly in product development. Instead of the lengthier series development process, cross-functional teams employ parallel development (Parker, 1994).

  In a comparison of Japanese and US manufacturing firms, Funk (1992) proposed that one reason Japanese firms outpaced US firms in developing new products is that Japanese departments tend to apply the concept of cross-functionality across the organization, orientating employees according to products, rather than functions, as is the case in the United States. Funk argues that the product-orientated approach facilitates multifunctional employees, employee-developed procedures and plans, and shared responsibilities, all of which can reduce the product cycle time.

- The use of cross-functional teams minimizes the difficulty of transitioning across project stages and results, with just one group of people to call upon to assess project status (Becker, 1990; Parker, 1994).

- Teams working in this way have a clear sense of overall project goals and can envision how each step influences the entire process (Becker, 1990).

- Cross-functional teams can solve complex problems more effectively (Tjosvold, 1991). They can also increase the group's creative capacity and access to expertise by bringing people together with different experience, skills, and interests (Ancona & Caldwell, 1992b; Parker, 1994; Tjosvold, 1991).

- Because members typically have different backgrounds, members can develop new skills and learn more about the organization from their colleagues (Parker, 1994).

Wanting to increase morale, production and quality, one corporation reorganized a division from a functionalized assembly operation to business-orientated work groups. The change resulted in substantial cost reduction, elimination of grievances, a reduction in employee turnover, and improved productivity which lasted over time (Fisher, 1981).

Until recently, standard practice in the auto industry was for designers to draw, engineers to fabricate, and manufacturers to tinker–each performing in isolated sequence. Indicative of this isolation, advancing a design to the next stage was referred to as "throwing it over the wall." Chrysler moved to autonomous "platform teams" in which all engineers and designers assigned to a specific project were placed together on a single floor, with representatives from marketing, finance, purchasing, and even outside suppliers located there also. Close cross-disciplinary contact from the start allowed for target pricing instead of prices being determined at project end. Chrysler has consistently bested its time and budget goals, developing the Neon, for example, in record time and with lower costs than normal (Taylor, 1994).

Teamwork and Communication

Although research on team performance has been conducted for decades, it is still difficult to determine why one team is more effective than another. Current literature indicates that the following elements play a substantial role in team results:

- Communication both within the team and across the organization;
- Creation of a sense of unity, identity, cohesion among team members;
- Location of team members in close proximity (collocation);
- Empowerment of teams to accomplish tasks; and
- Building trust, shared vision, responsibility among team members.

Of these different factors, probably the most critical and influential is effective communication within and across teams (Allen, 1977; Parker, 1994; Shaw, 1978). The pattern and quality of team communication often dictates whether a team will develop some of the other characteristics of successful teams, such as cohesion, trust, and identity.

- A Midwestern organization's semiconductor manufacturing team found that communication increased when teams were instituted in their organization. This increased the quality of employee relationships—their trust and respect for each other. Much of the increased communication focused on work-related issues, not social aspects, enhancing team members' understanding of the work and other disciplines' contributions (Abramis, 1990).

Many different factors influence the frequency, quality and methods of organizational and team communication, including team or organization size, member locations, team structure, team tenure, and member status:

- Snyder and Morris (1984) in a study of over 450 employees in 12 different social service organizations found that as organizational size increased, communicating effectively on coordination issues such as policies and procedures became much more difficult.

- Allen (1977) discovered that accessibility, social understanding, and status all influenced the degree and quality of communication. Regarding status, Allen found that R&D engineers with doctorates communicated quite frequently with other engineers with doctorates, but seldom communicated with others regarding social and technical matters. In contrast, non-doctorates in the same groups seldom communicated with others of their same status. The status barriers thus resulted in a very cohesive "upper echelon," with a noncohesive lower level.

Communication Networks

Allen's above finding illustrates the distinct patterns of communication that arise, either formally of informally, in organizations. These patterns are often referred to as "communication networks," describing how communication actually occurs within teams and organizations; who communicates with whom, how and in what sequence. Rosen (1989) reports that there are two primary models of communication networks in organizations today: pyramidal and all-channel.

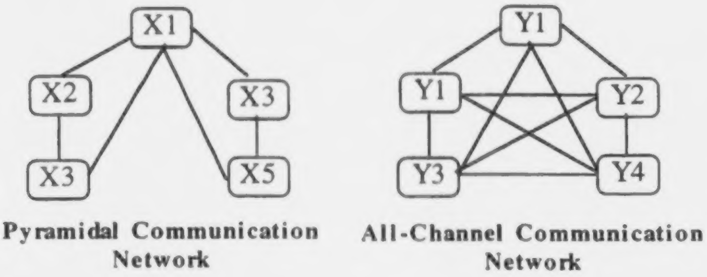

X1
X2
X3
X3
X5
Pyramidal Communication Network
Y1
Y1
Y2
Y3
Y4
All-Channel Communication Network

Figure 3: Types of communication networks.

Communication in pyramidal networks is tightly controlled. A group member may only communicate with one or two other members. In the all-channel model, everyone has equal access to others and to information. Rosen (1989) reports advantages of the all-channel model:

- fosters greater satisfaction among team members and more group cohesion;
- promotes sharing of leadership;
- allows the group to continue working even if the group leader is absent;
- is more effective for solving complex problems; and
- allows all members to be more thoroughly informed.

However, Rosen cautions, "An all-channel network therefore gives some people more freedom than they want or can handle. It may also be inappropriate because of low interpersonal trust among the group members" (Rosen, 1989, p. 78). For this reason, the team may want to employ different communication networks depending on the team's developmental stage and the project stage. Shaw (1978) reported similar findings, asserting that centralized (or pyramidal networks) were more efficient when information collection was the only task. Decentralized networks (or all-channel networks), on the other hand, were better at handling tasks requiring more than information collection, such as solving complex problems.

Communication Within and Across Teams

Experts agree that communication among team members is critical to accomplishing team goals and tasks, and that organizations need to foster this communication, whether through removal of status barriers, use of the physical environment, or institution of communication technologies. However, teams cannot and should not act in isolation from the organization. To succeed in the organizational context, teams must communicate with others in the organization. Ancona and Caldwell (1992a) stress that it is not the frequency of communication among team members that indicates project team success or failure, but the pattern of external activities the team employs.

Ancona and Caldwell (1990a, 1992a) propose three activities that team members must develop for high performance: task coordination, ambassadorship and scouting. Task coordination refers to managing internal team activities, as well as coordinating with other functions in the organization. Ambassadorship and scouting activities are primarily interacting with people external to the core team (e.g., representing the team to the organization, keeping abreast of activities/progress/developments of other teams, etc.). Scouting the progress and developments of other teams requires understanding the world beyond the team boundaries—what teams are there, who to talk to on the teams, team status, etc.

Ancona and Caldwell (1992a) maintain that teams need to focus on internal activities and members, but they also need to focus on external activities. Successful teams know which activities and which patterns (either internal or external) are important at different stages in the process. Teams initially focusing on ambassadorial and task coordination (ignoring the external scouting activities) experienced low levels of cohesion and high disorganization in the short term. Teams that primarily focused on scouting activities throughout the product development process, while high performers initially, later experienced internal dissension when external interaction proved unproductive" (i.e., team members were aware of external issues, but had little actual product to show) (Ancona & Caldwell, 1992a).

Ancona and Caldwell's finding concurs with Allen's (1977) earlier assertion that teams that interact with external resources are better performers. In a study of engineers in research and development, Allen found that internal and external communication played a significant role in job performance. Engineers that consistently turned in high performance reports communicated not only with people in their disciplinary fields, but also (and equally) with people outside of their disciplines. Engineers that turned in poor performance reports, on the other hand, seldom communicated outside of their groups. In addition, high-performers communicated more frequently with both groups than did engineers with low-quality work.

Allen (1977) further contends that there are three primary types of communication within an organization: communication to inform other employees, communication to coordinate projects and tasks, and communication to inspire (such as brainstorming). Not only must these three types of communication occur within the team to successfully complete team objectives, but they must also occur across teams throughout the organization.

Informal Communication/Interaction

Brown and Duguid (1991) argue that the way people actually work differs fundamentally from the ways organizations describe that work in manuals, training programs, organizational charts, and job descriptions. They state that "conventional descriptions of jobs mask not only the ways people work, but also significant learning and innovation generated in the informal communities of practice in which they work." It is through these informal communities that employees learn from their peers how to navigate the corporate bureaucracy, who to contact to get the most accurate technical information, what the undocumented "tricks" to making a program work are, how to best contact different types of clients, how to respond to certain kinds of queries, and so on.

Learning, according to Lave and Wenger's (1990) concept of legitimate peripheral participation, involves becoming an "insider." This approach suggests that it is not the abstract knowledge of the work that is needed for learning but participation in the practices and communities in which that knowledge takes place.

In the traditional office setting, exposure is a main predictor of communication (Zahn, 1991). This communication includes such informal situations as chance encounters at the coffee machine, chats over lunch, or discussions while traveling to visit a client. These communication situations are assumed to result in much of the informal participative learning discussed by Lave and Wenger (1990). A number of researchers have suggested that informal organizational communication can be the key to problem solving and successful organizational development (Allen, 1977; Becker, 1990).

The Integrated Workplace Strategy

An integrated workplace strategy combines management practices, physical settings, and technology to support a desired way of working. In this model, all components must work together to create an effective workplace. An array of physical settings could not exist without the proper technology to support working from these different settings; nor could the technology exist if management did not support this technology use by allocating the appropriate resources and training. Researchers stress the need for a comprehensive, integrated approach to implementing teams in organizations, with the objective being viewed in terms of all components (Becker & Steele, 1995; Tjosvold, 1986). In this context, we cannot discuss the implementation of teams without also addressing the physical environment and technology.

Physical Environment

Team members need to have access to one another to share ideas and build trust among members, for learning to occur, and for the team to operate as a unit. Research has shown that the likelihood of communication and collaboration between team members decreases as their distance increases (Allen, 1977). While this is not surprising, Allen found that the decay at which communication declines is quite astonishing. In his study of research engineers, he discovered that communication reached its lowest point after the first twenty-five or thirty meters. While "the probability that an individual will travel a given distance to talk with someone in his group is slightly higher than the probability for someone in a different group" (p. 240), communication still drops off dramatically after about thirty meters. This finding held true for both horizontal and vertical distances (i.e., a person was more likely to communicate with someone one floor away compared with someone several floors away).

In their study of scientific researchers, Kraut, Egido and Galegher (1990) discovered that the separation of team members on separate floors severely impacted the likelihood of cross-functional communication. Researchers from different departments located on the same floor were six times more likely to work together on projects than researchers who were on different floors or in different buildings. Having offices located on the same hallway further increased the likelihood that the researchers would collaborate. They also found that proximity played a significant role in the frequency of communication between researchers collaborating on a project, particularly in the planning and producing (i.e., writing, formatting) stages of the project. During these stages, researchers with offices next door to each other communicated twice as much as those who were located on the same floor.

Because the researchers were in different departments, the Kraut et al. (1990) results indicate that proximity, rather than common interests, influenced the frequency of communication (which often leads to collaboration); the quality of communication (richness); and the cost of communication (walking next door versus an airplane trip).

Many organizations are now strategically designing their physical environments to stimulate communication and promote certain desirable behaviors. In its simplest form, communication can often be promoted by either temporarily or permanently locating team members close to one another:

> The opportunity to interact with your teammates on an informal, daily basis contributes to team effectiveness because it breaks down the barriers between strangers, helps overcome past relationship problems, and facilitates the growth of new partnerships. (Parker, 1994, p. 175)
>
> Turn physical proximity into psychological unity: The members of the team share an open space and have their offices next to each other, and separated from other groups. The team holds regular meetings and exchanges. (Tjosvold, 1991, p. 139)

Rosen (1989) recommends using the physical environment to partition the group or give the group/team physical boundaries to promote solidarity. Parker (1994) concurs with Rosen's analysis, adding the benefits of collocation are more rapid team development, team learning, and informal problem solving.

Collocation of team members, however, does have potential drawbacks:

- Barriers such as walls or specific assigned areas might inhibit communication across teams and create rivalry between teams (Rosen, 1989). The team risks becoming isolated from other members of the organization, particularly if the team works together on a long-term basis

(Katz, 1982). As Allen (1977), Katz (1982), and Ancona and Caldwell (1992a) have pointed out, isolationism can quickly lead to team failure.

- Collocation also becomes quite difficult when people are assigned to multiple teams. Team members are forced to "show loyalty" to a specific team instead of dividing loyalties.

- Environments that collocate team members can sacrifice individual productivity for group communication:

  Steelcase's Harbors and Commons office design concept was originally designed to collocate team members to promote interaction. Individuals had their own 8' x 5' enclosed cubicle (Harbor) proximal to other team members' cubicles that opened into a team (common) area. A study of two teams using this environment indicated that, while team communication, collaboration, and cohesiveness improved, individual productivity decreased (Resch, 1994).

Allen (1977) and Becker and Steele (1995) propose that environments need to be flexible to allow teams to separate themselves and work as a unit, providing concentration, privacy, team space, while also preventing isolationism. In a nonterritorial office experiment, Allen showed that open environments do not necessarily decrease user privacy. Participants reported that, even though the amount of distraction was higher in the new office, they had more privacy than before. Explanations for this are that: 1) norms developed in the office such that, if a person was sitting in a certain location, it meant he/she wanted privacy; 2) it was easier to find a distant corner for work requiring privacy. A later study by Becker, Quinn, Rappaport and Sims (1994) supported Allen's findings showing that, in a nonterritorial open-plan office at SOL Cleaning Company in Finland, employees reported high levels of privacy, even though there were no private offices located in the building. The space however, provided many areas where people could "get away" from others and conduct private, concentrative work.

In Allen's study of engineers (1977), communication increased significantly both in frequency of communication per person and the number of people with whom an engineer communicated as a result of the nonterritorial environment. In the previous office arrangement, employees tended to communicate most frequently with people located in adjacent offices, but very little with people beyond that range. Communication *between* departments also increased initially after the nonterritorial office was implemented. As the project progressed however, and the novelty of the nonterritorial office wore off, communication between departments tapered off.

Some experts suggest strategically placing "interaction-promoting facilities" or "activity generating areas"— such as washrooms, coffee areas, copy, supply or mail rooms, or any other area shared by more than one group—to increase the likelihood that people from different teams and departments will see and communicate with one another (Allen, 1977; Becker & Steele, 1995).

An example of an environment that serves to both stimulate team communication and identity, as well as communication across teams, is Steelcase, Inc.'s Corporate Development Center project (Becker & Steele, 1995). When Steelcase, one of the largest manufacturers of office furniture, moved into its new headquarters in Michigan in May 1989, it provided:

- Multiple work areas: A combination of private individual workstations, project rooms and spaces, and shared space (e.g., cafeterias, conference rooms, break areas, etc.) to support different ways of working.
- Mixed neighborhoods: Employees from different disciplines share an area to promote cross-functional communication.
- Directors' clusters: Clusters of upper management personnel placed in the middle of the building to make them accessible to each other and the employees.
- Activity generators such as cafeteria/break areas to promote visibility throughout the building and "chance encounters."

In addition, the designers employed the notion of functional inconvenience—moving people through the building in an unconventional way (i.e., not the shortest distance or the easiest path)—to promote communication.

Role of Information Technology

Information technology (IT) can be used to help support teams. Particularly when team collocation is not possible, both information and people may become more accessible through IT.

Accessibility of Information

To perform effectively, teams need access not only to one another, but also to information. In a study of a cross-functional team at the Midwest Federal Correctional Institution, Perkins and Abramis (1990) found that the team's most valued resource (above equipment, materials, and training) was the availability of information. Allen (1977) contends that just having quality information available is not enough; unless that information is highly accessible, teams will not use it. He found that engineers tended to search for information using methods which required the least amount of effort, despite the level of quality of that information.

Kraut et al. (1990) believe that "accessibility" is actually a measure of personal cost, with people choosing the communication method that requires the lowest personal cost to themselves. Cost in this context refers to the time that it takes to locate someone, the time it will take to use a certain technology, the time expectation for a response, etc. The most supportive information technology, then, is technology that is high quality and of low behavioral cost. High quality means information which can be transmitted quickly and efficiently.

Accessibility of Team Members

Many times, it is very difficult for organizations to collocate teams, whether because team members are assigned to multiple teams, work in different buildings, or the facility is not flexible enough to handle temporary reconfiguration. In these cases, daily face-to-face interaction may be hindered or impossible.

Researchers do not agree on the extent to which technology can support or replace face-to-face communications in group work situations. Bikson and Eveland (1990) found that groups supported by technology developed "richer communications structure with less hierarchical differentiation, broader participation, and more fluctuating and situational leadership structures" (p. 285). They go on to report that electronic technology substantially weakens the constraints posed by time and space that accompany conventional group work tools. They contend, however, that communication technology should not necessarily replace face-to-face communication, but rather reinforce communication patterns within groups.

Researchers agree that face-to-face interactions among team members is one of the richest forms of communication. Face-to-face communication may allow people to work on more difficult tasks by providing them visual feedback and cues to people's understanding and reaction (Hollingshead, McGrath & O'Connor, 1993; Kiesler, Siegel & McGuire, 1984). Certain tasks such as coordination, problem-solving, and reaching consensus are thought to be easier when people can meet face-to-face (Kiesler et al., 1984; Galegher & Kraut, 1990).

Electronic communications technologies, such as e-mail, fax, and videoconferencing, also have some advantages depending on project stage and task. For example, electronic communications technologies may allow people to communicate more easily across status barriers and to communicate at different times of the day without having to consider others' schedules (Becker, Tennessen & Young, 1995; Kiesler et al., 1984).[1]

Parker (1994) suggests using software that allows for the following team tasks: document editing, work group communication management, team development, forms processing. The technology must allow communication that is "cheap, frequent, and spontaneous enough that collaborators can be in touch as easily as if their offices were next door to each other" (Kraut et al., 1990, p. 166). More specifically, IT should include:

- communication tools for planned and unplanned communication in real-time and delayed-time;
- coordination tools for scheduling meetings, tracking project status; and
- task-orientated tools, whether individual or multiperson tasks.

These communication technologies differ from what many companies use to aid group work, such as decision support systems and teleconferencing, in that these latter tools facilitate formal meetings, but do not help encourage spontaneous interaction or task completion (Kraut et al., 1990).

The Virtual Office

The concept of the virtual office means that one can work at any location, at any time, whether at home, in a hotel, in the office, in the car, at the beach, or on the plane. The "office" thus becomes anywhere a person chooses to conduct work. Implementing a virtual office removes place and time as a constant in the organization. When implementing teams, where face-to-face encounters and communication are so important, the virtual office may have a serious impact on teams' ability to work together to meet objectives. Collocation becomes difficult. Employees can be at any location so chance interactions may be less likely. Coordination of tasks may be hindered since people may not interact every day.

At the time of this publication, very few organizations have implemented "virtual" offices on a large scale, particularly not team-based organizations. Little, if any, research has thus been conducted in this area. We can assume, however, since remote working is a component of working virtually, that employees in the virtual environment experience similar problems to remote workers:

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[1] For a more detailed discussion of electronic communication technologies and face-to-face communication, please refer to The International Workplace Studies Program publication, *Information Technology for Workplace Communication.*

- Huws, Korte and Robinson (1990) state that the higher the proportion of their working time teleworkers spend at home, the more dissatisfied they are with their contacts with others in similar work. More than half of the teleworkers spending nearly all their working time at home mentioned the lack of social contacts as a disadvantage of telework. Other research shows that if people start to do teleworking more than 50 to 60% of the time, they no longer feel part of the organization (de Jonge, 1992).

- The majority of employees in an IBM mobility program who were able to work in a variety of locations not including their former office rated the lack of professional and social interaction as the aspect they liked least about the program (Becker, Quinn & Callentine, 1995).

- When communicating exclusively using information technologies, as in a *full-time* teleworking environment, Martino and Wirth (1990) suggest that workers may become isolated, have elevated stress levels, and reduced morale.

Teleworkers or other remote workers, however, generally perform independent work, not teamwork. While teleworkers may miss the social aspects of working exclusively in the office, they do not necessarily depend on daily interactions with coworkers to complete their work as employees on teams do. Rosen (1989) contends that even programs such as flextime, where workers can modify their work schedules, can be difficult to implement with work teams, where tasks are interdependent. In this case, work is not independent, and therefore, an employee's choice of work hours must consider other team members' schedules.

In the virtual office, team members have the added disadvantage of not knowing team members' work schedule or location while in the office. Becker and Steele (1995) posit that organizations can use team offices in such instances to stimulate communication and collaboration.

Summary

Although teams are being used extensively and the merits and types of teamwork are the subject of countless articles, there is very little research which contributes an understanding of how teams function in the real-world work environment nor of how to support that functioning. Researchers agree that communication both within and outside the team is important but have not discovered how to best support various team communication needs nor how to encourage teams simultaneously to enabling individual work. Further, with rapid increases on the technological front, the ways IT can enable teams are just being explored and their usefulness for daily team coordination and information sharing activities is not understood. All of these teamwork issues, important in a typical office, become critical to understand in the context of alternative workplace strategies.

Methodology

The focus of this study was to understand how integrated workplace strategies affect organizations and employees, particularly those performing collaborative work. For this report, integrated workplace strategies were defined as those that combine the use of organizational physical settings, technologies, and culture to facilitate an improved way of working for the organization.

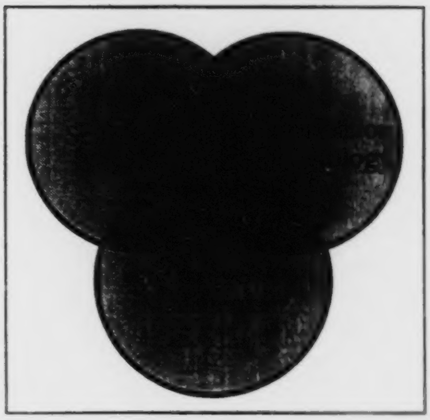

Figure 4: Primary components of integrated workplace strategies.

Research Questions

Regardless of industry, project teams share common characteristics: Individuals work collaboratively across functions; individuals are typically members of more than one project or team; team size fluctuates at different project stages. How do varying virtual workplace strategies help (or hinder) organizations coping with these typical project issues?

The specific research questions addressed in this study included:

- How do different forms of a virtual workplace strategy in which location and time of work are flexible affect people's ability to work as a team? More specifically, how are communication, meetings, problem-solving, and coordination accomplished in various virtual officing approaches, compared to a more conventional office?
- Does the workplace strategy influence work processes, such as the way tasks are completed?
- How, where and when does learning occur under different forms of virtual officing compared to a more conventional office environment? What factors influence that learning?
- To what extent can the workplace strategy promote informal communication and learning, idea generation, and cross-functional communication?

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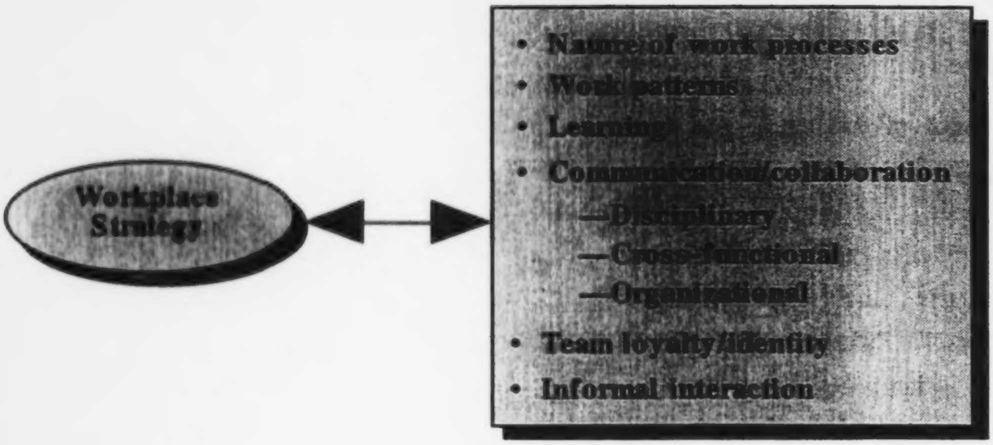

Figure 5: Research focus.

Site Selection and Research Design

Chiat/Day Inc. Advertising was the organization selected for this research. Chiat/Day initiated a corporate-wide effort in 1993 to move towards a virtual environment—one in which work could occur at any location and at any time without significant differences in access to people or information. The intent was to solidify organizational focus on a process, not departmental, perspective. Implementation involved two primary changes: organizational functioning and the physical workplace—the physical settings, space allocation and use, and information technology.

The existence of three distinct sites with different workplace strategies at Chiat/Day met our research design criteria of observing work and interaction patterns of project teams doing similar work in the same company. In the study time frame, two sites had implemented changes to both the organizational structure and the workplace (to different degrees), while the third had initiated changes only to the organizational structure. These three sites allowed us to explore how workplace variations affected employee performance on team projects.

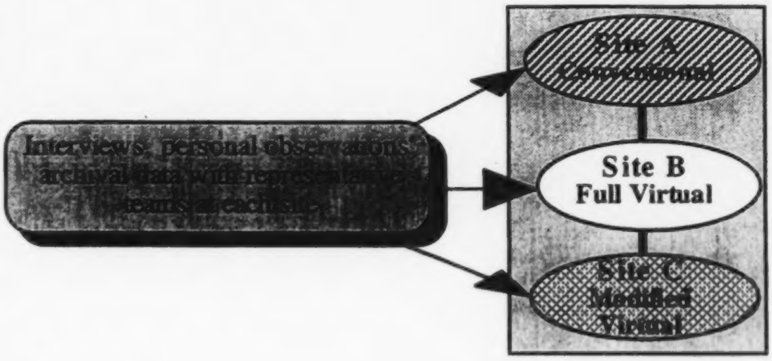
Interviews, personal observations, archival data with representative teams at each site.
Site A Conventional
Site B Full Virtual
Site C Modified Virtual

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Figure 6: Research design.

The Full Virtual workplace strategy instituted a nonterritorial office with dedicated project rooms and remote capabilities. Without exception, employees had no assigned, individual work spaces. Employees could work at any time, at any location in the office and remotely.

The Modified Virtual workplace strategy also incorporated a nonterritorial office with dedicated project rooms and remote capabilities. Over time, however, exceptions were made for certain disciplines according to work needs and preferences. These disciplines were assigned work areas or individual workstations, thus changing the nonterritorial office to a mix of assigned and unassigned areas.

The third strategy, the Conventional strategy, had assigned cubicles in an open plan environment, limited team areas, and limited/no remote capabilities. (While this workplace strategy may not be "conventional" or traditional across all companies, we use the term here to indicate that, of the three offices we observed, it was the only one that had not yet adopted the concept of working virtually.)

Table 1: Comparison of Research Sites

Conventional Strategy	Full Virtual Strategy	Modified Virtual Strategy
• Assigned workstations • Limited team areas/common spaces • No remote capabilities	• Nonterritorial office (no exceptions) • Remote capabilities • Team areas/common spaces	• Assigned and nonterritorial areas (exceptions over time) • Remote capabilities • Team areas/common spaces

Team Selection

The research examined the relationships between employees within and across project teams, as well as within and across functions or disciplines. To accomplish this task, the IWSP needed a manageable-sized unit to study, rather than many individuals and teams at each of the three sites. We focused on specific teams (rather than an entire office or many teams simultaneously), and then broadened the research as we became more familiar with it, to observe members' relationships to the larger organization. By focusing on teams in which members often were assigned more than one account, researchers could follow individual members to observe their relationships across different projects and accounts. In addition to the specific account teams, key personnel in human resources, management information systems, production, and reception, who were not specifically

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members of any team but instrumental to the implementation and operation of the workplace system, were also included in the study.

The teams were chosen using two criteria:

- The team had to be fairly representative of teams found at other agency offices. For example, one of the largest agency accounts was not chosen because, although the organization mainstay, it had many different teams scattered throughout the organization working on different components of the advertising (e.g., national versus regional advertising, media versus creative work, etc.) rather than all components within a team.

- The team had to be involved in all components of the advertising process. Some account teams performed just the media component for their clients, without any creative work or account planning. These teams were not examined in depth because they often represented only one or two disciplines in the agency, and thus would have eliminated the need for cross-functional communication.

Data Collection

Teams tended to be dynamic throughout the course of the study. They were in different developmental phases and team membership often changed. Due to the impracticality of quantifying the issues of teamwork in this study, interviews and anecdotes were the primary sources of data collection.

Interviews

Interviews were conducted with team members, both face-to-face and via telephone. Individual interviews typically lasted from 30 to 60 minutes. Interviews were tape recorded with the interviewees' permission. Researchers also collected information from employees via electronic mail. While no interviews were conducted solely using this medium, e-mail was helpful in following up specific issues or questions.

Personal Observations

Researchers spent considerable time observing how employees worked and interacted in each of the offices. This data provided information on location, purpose, and time of use.

Archival Data

Data collected by the individual sites independently, when available, was used to help the researchers gain a better understanding of the workplace system and how employees reacted to the system. Such data included: floor plans, performance studies, client studies, computer logs, and receptionist logs. Numerous documents were also provided, including:

- *Virtual Agency Task Force and Mission Statement* - New York City Office;
- *Chiat/Day "Team Architecture:" The Questions. The Answers. The Plan for January 3rd and Beyond.* - Los Angeles Office;
- *Chiat/Day Team Architecture: Day One.* - Los Angeles Office;
- *"Team Architecture": FY 1994, Follow-up Research Proposal* - Los Angeles Office;
- *Agency Fact Book: Chiat/Day Advertising, November 10, 1994* - Toronto Office;
- *Chiat/Day: How We Work* - Toronto Office;
- *Chiat/Day Employee Handbook, October 1992* - Agency-wide; and
- *New Workplace Strategies and Change Management: CRE 2000 Innovation Forum, July 20, 1994* - Agency-wide.

Site and System Description

Chiat/Day inc. Advertising

Chiat/Day was established in 1968 through the merger of Jay Chiat and Guy Day's advertising agencies. Since then, the advertising agency has grown to be ranked number 16 in the country.

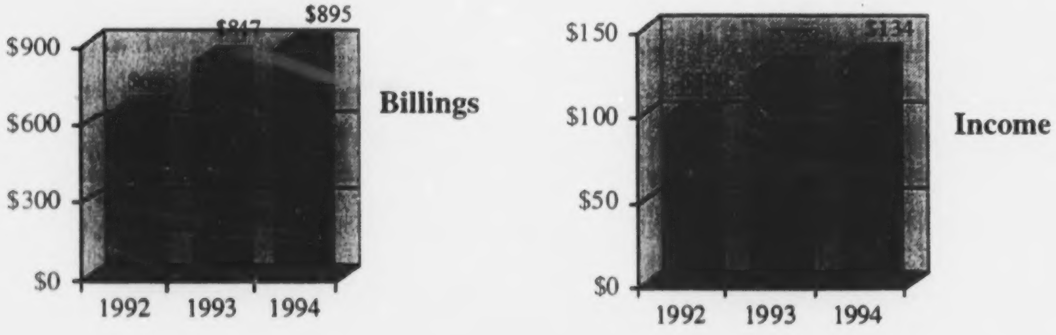


Figure 7: Chiat/Day 1992 to 1994 North American billings and income in millions of dollars.

Chiat/Day's major clients include major automobile manufacturers, electronic products, banking and insurance industries, and consumer products. Headquartered in the somewhat eccentric community of Venice west of Los Angeles, Chiat/Day has full-service offices in New York City, London and Toronto, as well as small regional service offices in various American and Canadian cities. Including the regional locations, total employment is over 650.

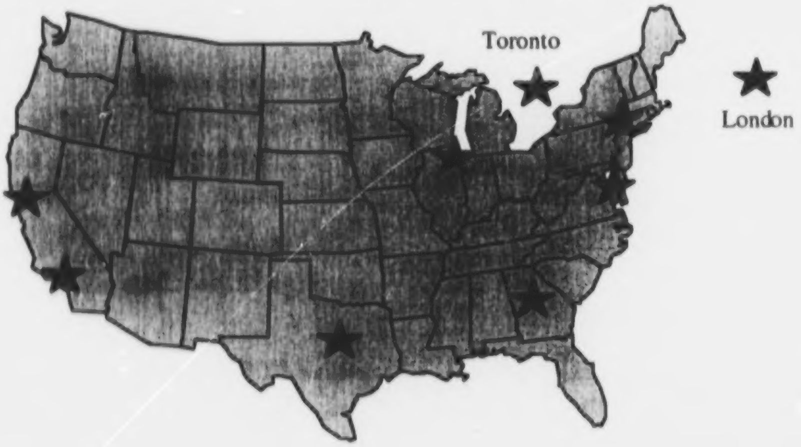


Figure 8: Selection of Chiat/Day offices.

Chiat/Day has won many industry awards, including "Agency of the Decade" in 1989. One of the first advertising agencies to adopt personal computers, Chiat/Day was also a forerunner in the elimination of private offices, moving all employees to personal cubicles before cubicles were normal advertising offices fixtures. Chiat/Day is well-known among agencies as a "workhorse" agency, where employees put in long, fast-paced hours, evidenced by past company slogans, "Chiat/Day and Night" and "Good enough is not enough."

Drivers for Change

Although billings were up substantially, from $645 million in 1992 to $847 million in 1993, Chiat/Day was interested in accomplishing a long-term, sustainable competitive advantage. As with any industry, there are two primary ways a company can grow: increasing business from existing clients and acquiring new clients. The pressures to grow or maintain billings at existing levels, however, may force employees to compromise quality and creativity, critical components for attracting and maintaining clients in a service-based organization.

Since much of advertising's costs are incurred preparing a marketing campaign to entice the client to hire a firm, Chiat/Day wanted to strengthen relations with established clients to build long-term clientele. Reinforcing these ties would not eliminate the initial marketing campaign costs, but could decrease attrition, and thus the need to constantly pitch new clients. To accomplish this task, Chiat/Day also wanted to reassess relationships with their own employees. In advertising, the relationship between agency and employee tends to be short-lived, with people moving to other agencies or venturing out on their own quite frequently. Chiat/Day was no exception.

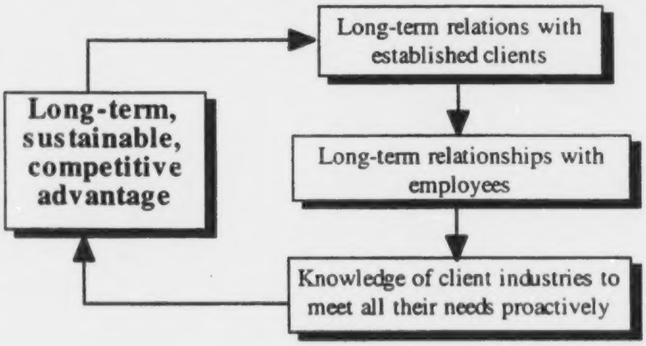

Long-term relations with established clients
Long-term, sustainable, competitive advantage
Long-term relationships with employees
Knowledge of client industries to meet all their needs proactively

Figure 9: Drivers for organizational change.

The Workplace Strategy: Team Architecture

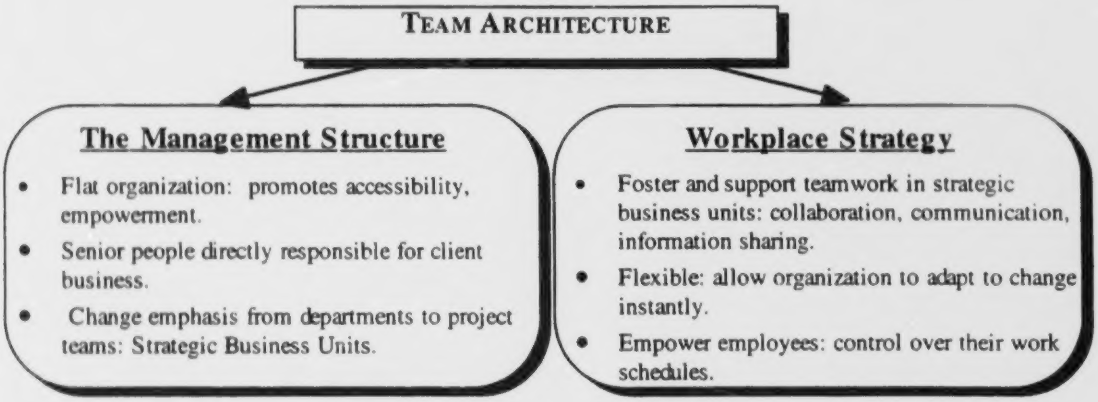
When developing their plan for a new way of working, Chiat/Day decided that because it could not predict what the future would look like, it needed to build an organization that would thrive regardless of what the future looked like. To this end, five characteristics were identified as being necessary to thrive.

- It must be fundamentally able to manage and stay ahead of change;
- It must use technology in a strategic way;
- It must be able to synthesize information into intelligence;
- It must invest in relationships (with clients, vendors, employees, and the communities it operates in); and
- It must be able to field the best possible team regardless of space or time.

They wanted to move from a pyramidal organization to a flatter, less-hierarchical, and status-driven organization. To serve the client faster and better, they wanted to change employee allegiance from function or discipline to client and total process. Chiat/Day has traditionally upheld these principles. In 1978 they implemented open plan offices, to promote accessibility and communication among all employees and to remove offices and walls as status indicators. Over the years, however, employees had constructed different barriers that inhibited the flexibility and effectiveness of the organization:

> For all our talk of teamwork, the reality was that Chiat/Day, like most internally driven companies, was inflexible. We were also functionally focused, so that many people saw themselves as belonging to a department....Moreover, managers saw themselves as the central players and, therefore, assumed that they needed to control everything.
>
> Jay Chiat, Chiat/Day homepage (http:/www.chiatday.com)

The resulting new workplace strategy, *Team Architecture*, was an organizational structure that teams the most appropriate employees together to develop and maintain specific client advertising campaigns and support new ways of working in a virtual environment. Two primary components made up the strategy: the management structure and the supporting workplace strategy.



The Management Structure

- Flat organization: promotes accessibility, empowerment.
- Senior people directly responsible for client business.
- Change emphasis from departments to project teams: Strategic Business Units.

Workplace Strategy

- Foster and support teamwork in strategic business units: collaboration, communication, information sharing.
- Flexible: allow organization to adapt to change instantly.
- Empower employees: control over their work schedules.

Figure 10: Components of Chiat/Day's workplace strategy.

Using these elements in conjunction, Chiat/Day's objectives were to build a space that would be a resource to the employees--one that was dedicated to collaboration and that helped build a collective intelligence (a systematic way of sharing, harvesting, and building on what the employees know). The agency aimed to:

- preserve the high level of energy characteristic of the agency;
- improve the quality of the work;
- raise the technology competence of the employees and equip them with the appropriate state of the art tools needed to do their jobs; and
- improve retention of "keepers" (good, productive employees that were often too mobile) to promote the growth of the agency.

The Management Structure

As part of the Team Architecture, Chiat/Day abolished all old titles and created two levels of partnership in the organization. All board members were designated managing partners, while directors, management supervisors and senior planners became partners. Other position titles became more descriptive (e.g., art director, copywriter, media director). Employees were arranged in Strategic Business Units (SBUs) and assigned to project teams to serve client accounts (see diagrams below). Under the project teams, members became responsible for the entire project, rather than just their functional piece.

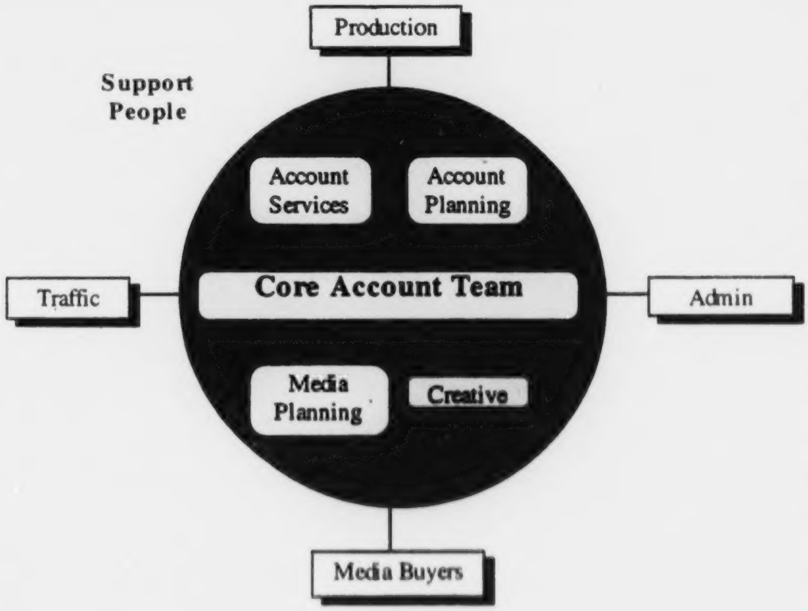
Strategic Business Units and Account Teams

The new workplace strategy integrated the functions of the primary or core disciplines and related service activities around SBUs which focus on major clients or groups of clients. The goal was to increase responsiveness to clients and to maintain continuity in relationships. Senior employees were removed from administrative tasks to head teams, placing experienced, talented people on the product, rather than on administrative functions.

Table 2: Functions Performed by the Four Core Disciplines

Account Services	Account Planning	Media Planning	Creative
• Account stewardship. • Conveys understanding of client business issues. • Brings all appropriate agency resources to bear on account.	• Understand ad target (consumer), i.e., who are they and what do they think? • Conduct and analyze research and convey findings to Creatives.	• How do we reach the target audience? • Where should the ad run? • How often should the ad run? • Buys radio/print space for ad.	• Develop ad concepts, i.e., distinctive message delivery. • Work in radio, print, television, direct response, promotions, cyberspace...

Accounts were arranged typically in SBUs according to type of client being served and led by the account team leader, the Group Account Director or Managing Supervisor. Each account had its own team including four core disciplines: Account Services, who act as client liaisons and handle project coordination; Creatives, who do the brainstorming and are the artists of the agency; Media Planners (handle media targeting); and Account Planners (convey consumer preferences and the best approach for reaching the consumer). The Support functions, including media buyers (purchase print space or air time), traffic (project tracking), and mechanical production of the advertisement (photography, radio/television, printing), work throughout the production process, becoming critical as completion deadlines approach.



There were variations in core team membership, depending upon client needs. Some accounts were primarily media-driven, with no creative work conducted by Chiat/Day. Other clients were interested in Chiat/Day's creative work but selected and bought their media through another agency or on their own.

Figure 11: Relationship among organizational disciplines.

Typically, employees were assigned to several account teams, usually within the same SBU. This was particularly true of Account Services people, who tended to be assigned exclusively to a single SBU. Creative and Media employees were more likely to be assigned across SBUs, though on a limited basis. Account timelines overlapped; therefore, there were multiple interactions among team members and among teams. Coordination of teams and projects was critical. The agency's success was thus dependent on excellent performance of these tasks.

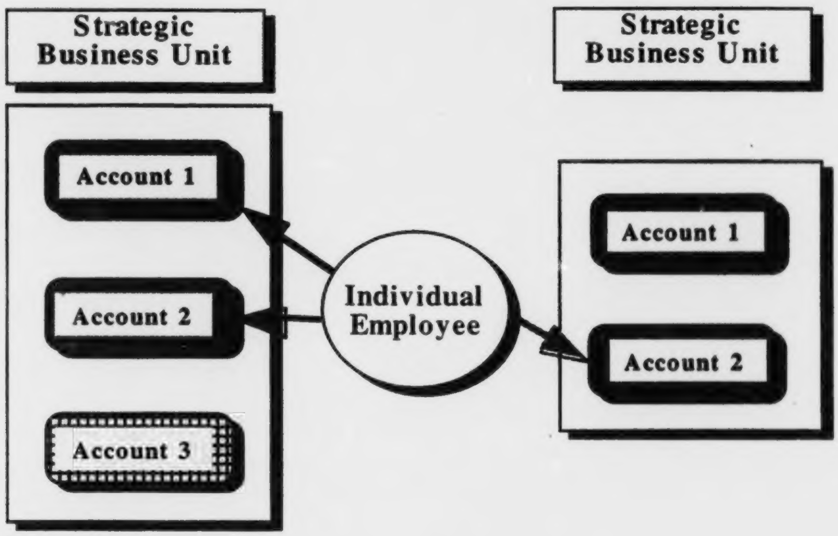


Figure 12: Employees were often on several accounts, sometimes across SBUs.

The Advertising Process

The advertising process is complex, free-flowing and cyclical. Generally, new business arises from a company's desire for a new advertising campaign. The company indicates to advertising agencies that they are accepting bids and the New Business group puts together a team.

Table 3: Members of a New Business Pitch Team

Senior Members	Supported By:
• Account Director • Director of Account Planning • Media Director • Creative Director	• An Account Supervisor • An Account Executive • At least one Creative team (Copywriter and Art Director) • One or more Account Planners • One or more Media Planners • Others depending on type of advertising

The senior people provide overall leadership while the less senior represent the team that will service the account after the agency wins the business. The new business pitch has several stages. In the first, a questionnaire or "RFP" is filled out by the agency, including background information and an opportunity for the agency to highlight any relevant experience it may have. Second, there is usually a "capabilities" meeting where the agency meets with the potential client to talk about credentials as well as ask about the client's business--information is important and chemistry is critical at this stage. Finally, the agency executes a specific assignment for the potential client:

either strategic or speculative creative. If the agency wins the business, the account team is assembled and the advertising process begins.

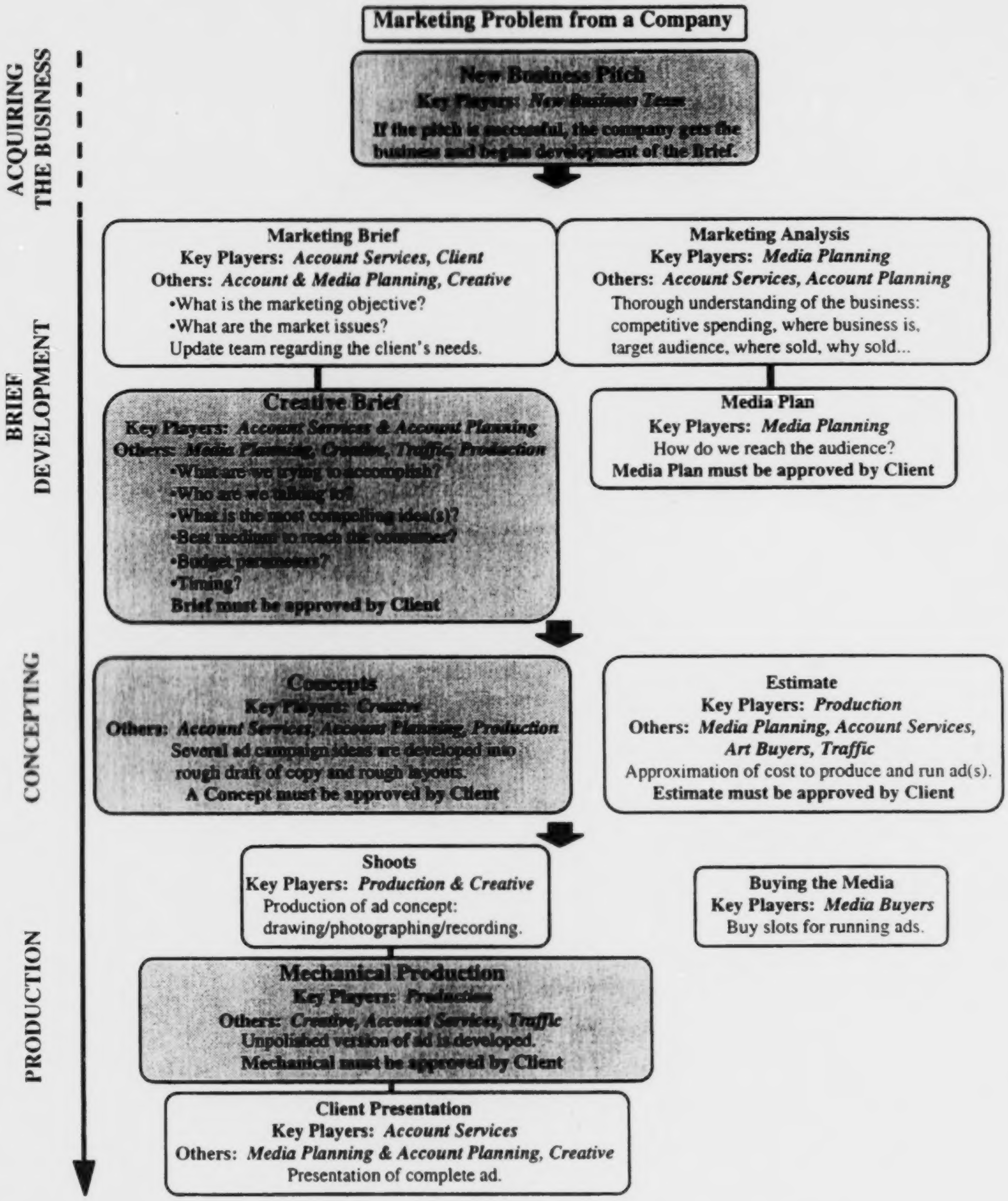

Marketing Problem from a Company
New Business Pitch
Key Players: New Business Team
If the pitch is successful, the company gets the business and begins development of the Brief.
ACQUIRING THE BUSINESS
Marketing Brief
Key Players: Account Services, Client
Others: Account & Media Planning, Creative
•What is the marketing objective?
•What are the market issues?
Update team regarding the client's needs.
Marketing Analysis
Key Players: Media Planning
Others: Account Services, Account Planning
Thorough understanding of the business: competitive spending, where business is, target audience, where sold, why sold...
BRIEF DEVELOPMENT
Creative Brief
Key Players: Account Services & Account Planning
Others: Media Planning, Creative, Traffic, Production
•What are we trying to accomplish?
•Who are we talking to?
•What is the most compelling idea(s)?
•Best medium to reach the consumer?
•Budget parameters?
•Timing?
Brief must be approved by Client
Media Plan
Key Players: Media Planning
How do we reach the audience?
Media Plan must be approved by Client
CONCEPTING
Concepts
Key Players: Creative
Others: Account Services, Account Planning, Production
Several ad campaign ideas are developed into rough draft of copy and rough layouts.
A Concept must be approved by Client
Estimate
Key Players: Production
Others: Media Planning, Account Services, Art Buyers, Traffic
Approximation of cost to produce and run ad(s).
Estimate must be approved by Client
PRODUCTION
Shoots
Key Players: Production & Creative
Production of ad concept: drawing/photographing/recording.
Buying the Media
Key Players: Media Buyers
Buy slots for running ads.
Mechanical Production
Key Players: Production
Others: Creative, Account Services, Traffic
Unpolished version of ad is developed.
Mechanical must be approved by Client
Client Presentation
Key Players: Account Services
Others: Media Planning & Account Planning, Creative
Presentation of complete ad.

Figure 13: Advertising process.

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The Workplace Strategy

The second component of Team Architecture supported and reinforced the management reorganization by introducing radical changes in the design and use of office space, and by providing additional and enhanced information technology. The workplace was set up as a virtual environment, allowing employees to work anywhere at any time according to their particular work requirements. They could work at different nonterritorial (unassigned) spaces in the office, from their homes, from client offices, from restaurants, or any location most convenient and conducive to the current task. While portable computers were not assigned to specific individuals, employees wishing to work remotely could sign them out from supply rooms or "concierge desks" on a "first come, first served" basis.

The virtual workplace strategy was based on a university model. Employees planned their own schedules around team meetings and deliverables, as college students plan activities around classes, papers and tests. People gathered, received assignments, completed them, and then were "graded" accordingly. They did not have to sit "in class" to accomplish their work, and performance, rather than attendance, was the measure of success.

Jay Chiat explained:

> The virtual office is not about working at home. It's about changing the actual workplace into a resource, rather than a place where you have private storage bins, which are offices, to put what rapidly becomes obsolete materials. so instead of coming in in the morning like you have all your life and knowing where you're going to sit, now you have to come in and know what you are going to do.

The following sections briefly describe the components of the workplace strategy. Each office has variations to the following theme, which will be summarized at the end of this chapter.

The Office Settings

The new offices centered around three primary settings: the project rooms, activity areas, and individual workstations (carrels or cubicles). These settings provided employees with an array of workspace options depending on work performed (e.g., individual work, team tasks, meetings, etc.). Except for the project rooms assigned to specific accounts, all workspaces were meant to be nonterritorial (exceptions will be described later).

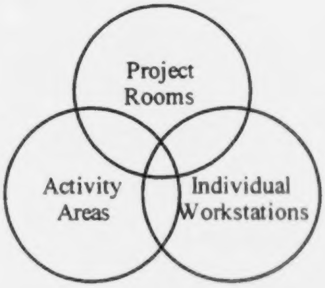

Figure 14: Three main settings available in the virtual office.

Project Rooms

The project rooms were collaborative meeting spaces where client accounts "lived." All information on the client's business, proposals, strategies, research materials, advertising materials, competitive data, and media plans were located in a specific project room, and were available to anyone working on that account. Based on the number of clients, more than one account sometimes shared a project room. In such cases, accounts were within the same SBU, and often shared similar characteristics and resources (e.g., they belonged to the same industry, had similar target audiences, used the same media to reach the audience, had the same team members, etc.).

Photo 1: Typical Project Room

Project rooms ranged from about 300 to 900 square feet. Each contained a large table, chairs, and a range of equipment including, most typically, a stationary telephone, a desktop computer (as well as hook-ups for laptops), a monitor and videotape deck.

Workstations

Located outside the project rooms, throughout the office, were nonterritorial work stations. Many of these were equipped with networked computers.

Activity Areas - Clubhouse

Activity areas, throughout the office, supported employees' functional and social needs. They ranged from large, open meeting areas or the "Clubhouse" to smaller, more private alcoves.

The Clubhouse was modeled after a student union and included booths, tables, and lounge furniture. There were network connections for laptops throughout the space and several stationary telephones. Televisions played MTV or CNN. There was a bar and kitchen area where employees stored their lunches and came for snacks throughout the day.

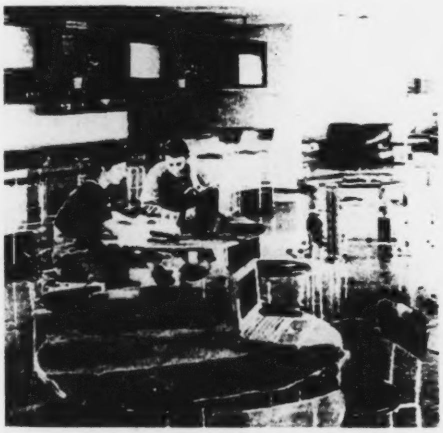

Photo 2: NYC Office Clubhouse

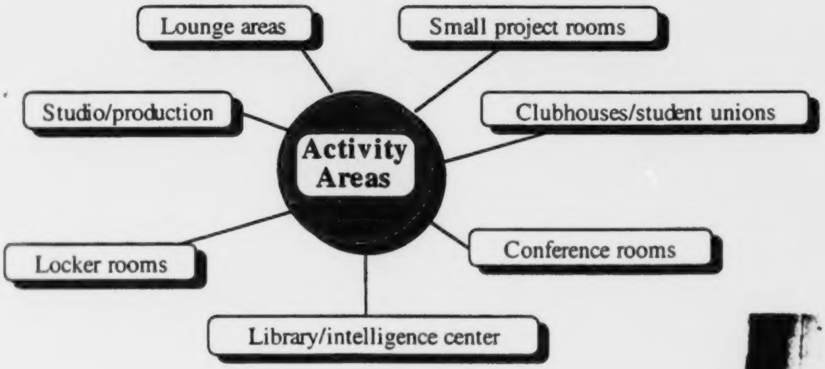

Figure 15: Various work areas in the virtual office.

Because employees did not "own" a desk or filing cabinet for personal storage, locker rooms were provided with one locker per person.

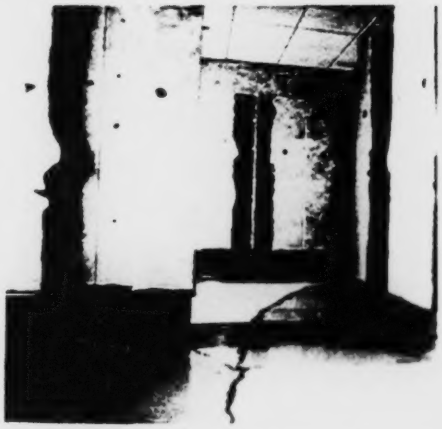

Photo 3: NYC Office Locker Room

Technology

The new workplace technology enabled employees to work in different locations while still maintaining necessary contacts with coworkers and clients. Networked computers were provided at a variety of office workspaces, including project rooms, individual workstations, and libraries.

Table 4: Technology Used to Support the Virtual Office

Standard Technology with Team Architecture

- Macintosh computers and compatible software for use in and out of the office.
- Standard applications platform (Microsoft Word, Excel, MarkUp, FileMaker Pro, etc.).
- QuickMail capabilities.
- Server environment.
- Wireless telephones.
- Ability to scan documents to the server.
- Pagers/messagers.

Employees could also borrow equipment from supply and plug into the system. For instance, the Clubhouse had table and floor outlets to plug in portable computers to link to the network.

Wireless telephones could also be borrowed so employees could receive and make telephone calls wherever they chose to work.

Photo 4: "Plugged In" at LA's Clubhouse

Photo 5: Wireless Phones Could Be Taken Anywhere

Descriptions of the Three Research Sites

The three sites chosen for this study, Los Angeles (LA), New York City (NYC), and Toronto, each had a different workscape. The Los Angeles office ("Modified Virtual") was the first to implement Team Architecture in January 1994. New York ("Full Virtual") implemented their virtual office in June 1994. At the time of this study, Toronto ("Conventional") had restructured disciplines into SBUs, but had not yet implemented the virtual office strategy.

Table 5: Comparison of Sites

	Conventional Office	Virtual Offices			
	Toronto	Los Angeles		New York City	
		Before Virtual Implementation	After Virtual Implementation	Before Virtual Implementation	After Virtual Implementation
Number of Employees	90	350	350	160	160
Office Size in square feet	20,000	180,000	115,000	98,000	29,000
Square Feet / Employee	222	514	329	613	180
Number of Floors	3	1 & 3*	3	4	1

** Note that the previous office was comprised of the existing three story building as well as a large one story warehouse across the street.*

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Table 6: Workplace Strategy Comparison

	Toronto	Los Angeles	New York
Nonterritorial offices	⊘	⊘	✓
Remote capabilities	⊘	✓	✓
Activity/Common areas	⊘	✓	✓
Dedicated team rooms	⊘	✓	✓
Assigned workstations collocated by team	✓	⊘	⊘

New York City Office

New York implemented a "full virtual" workplace strategy. All workspaces were nonterritorial. No disciplines had dedicated work areas and no individuals had assigned desks. Employees could work either in individual spaces, the project rooms, or common areas. Although occupying only one floor, these spaces were fairly physically separated (see conceptual diagram). These spaces each made up a portion of the periphery of the office (surrounding the elevator shaft) making them high access spaces as traffic moved through the space. There were five project rooms, about seven unassigned schedulable rooms and a variety of informal individual or group work spaces.

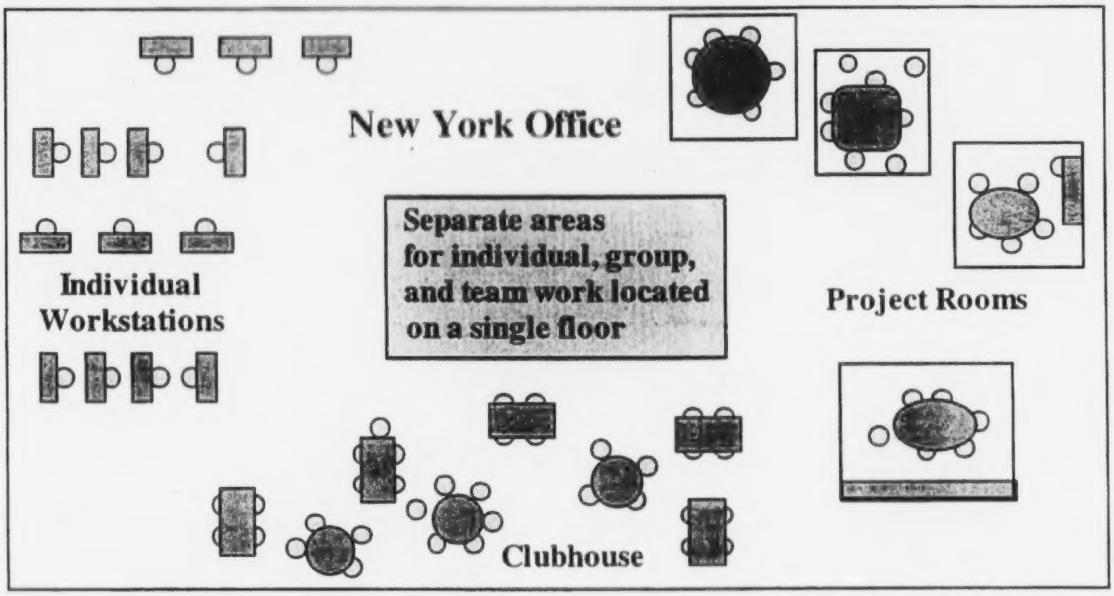
New York Office
Separate areas for individual, group, and team work located on a single floor
Individual Workstations
Project Rooms
Clubhouse

Figure 16: Conceptual diagram of the New York City office.

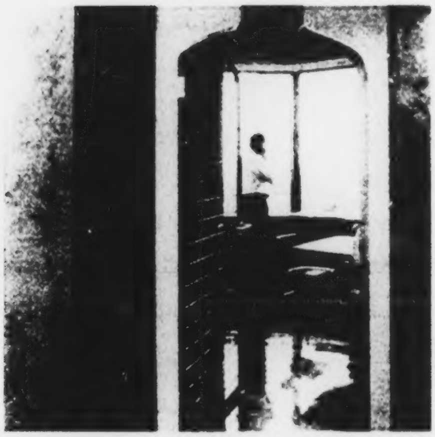

Photo 6: On the Phone in a NYC Project Room

Photo 7: Working at a NYC Carrel

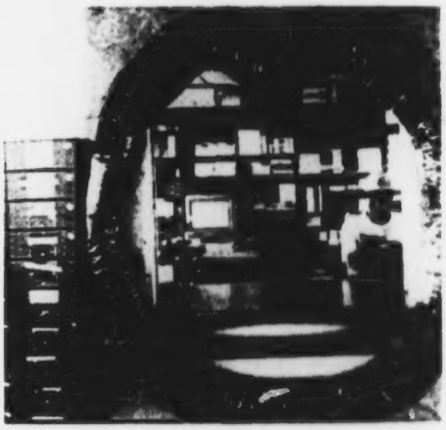

Photo 8: NYC "Store" for Checking Out Laptops and Telephones

Los Angeles Office

Initially, the Los Angeles office was almost entirely nondedicated workspace. In time the office was "modified" for certain disciplines.

Table 7: Disciplines by Whether They Had a Dedicated Work Area

Had Dedicated Nonterritorial Work Area	Did Not Have Dedicated Work Area
Production*	Account Services
Traffic*	Account Planners
Creatives	Media Planners

** Note that while there was no formal assignment of particular workstations to particular individuals, our research indicated that in practice, certain individuals regularly used particular workstations in these areas.*

Informal modifications also occurred. Individual team members "took over" cubicles immediately adjacent to the project rooms (see conceptual diagram), and employees lacking a dedicated project room permanently occupied common spaces. While these spaces were not formally assigned to individuals, employees understood that these workplaces "belonged" to specific people or teams. We thus refer to this strategy as "modified virtual."

LA's Clubhouse was a large space occupying the entire wing off the second floor. The Creatives occupied the wing off the third floor and the library, the wing off the first. The main floors contained project rooms and individual and group workstations. The Production and Traffic areas were on the third floor. There were a total of twelve project rooms, and another twelve schedulable unassigned project and conference rooms, in addition to a variety of informal individual or group work spaces.

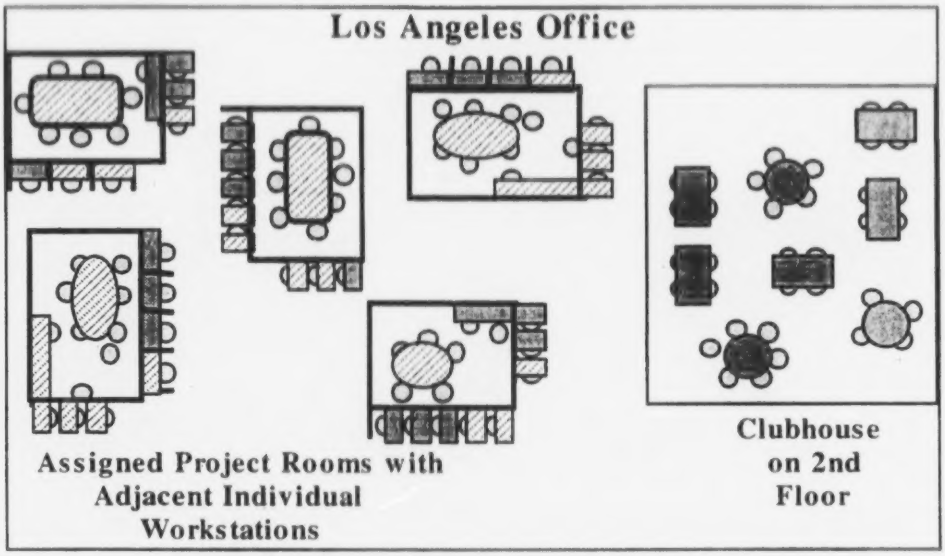
Los Angeles Office
Assigned Project Rooms with Adjacent Individual Workstations
Clubhouse on 2nd Floor

Figure 17: Conceptual diagram of the Los Angeles office.

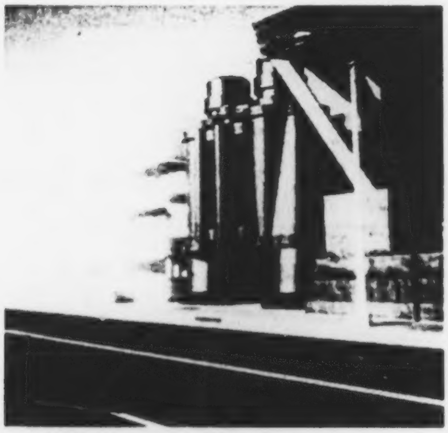

Photo 9: LA Office Exterior

Photo 10: LA Clubhouse

Photo 11: LA Office Library

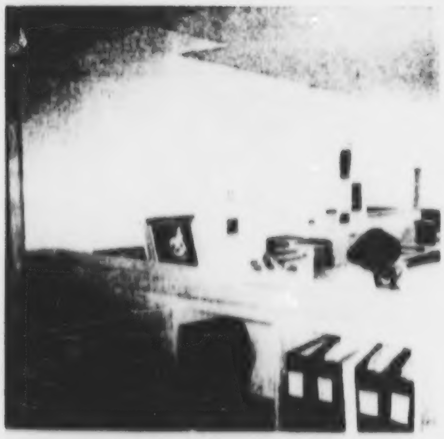

Photo 12: Team Member Workstation Outside Project Room

Photo 13: Some Workstations Had Permanent Computers/Telephones

Photo 14: Informal Work Area

Toronto Office

The Toronto office operated much as New York and Los Angeles had before they implemented the virtual workplace strategy. Assigned collocated cubicles were arranged by accounts and SBUs (see conceptual diagram). The office provided few common spaces (one small informal lunch area) and lacked dedicated project rooms. Teams could, however, use any of the six unassigned conference rooms on a "first come, first served" basis.

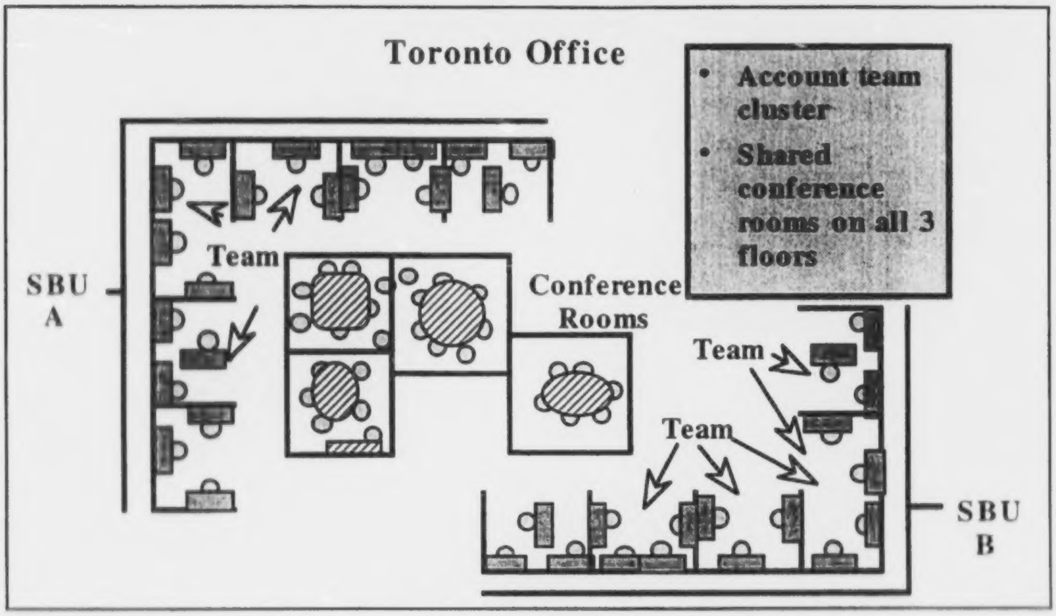

Figure 18: Conceptual diagram of Toronto office.

Photo 15: Team Meeting in a Conference Room

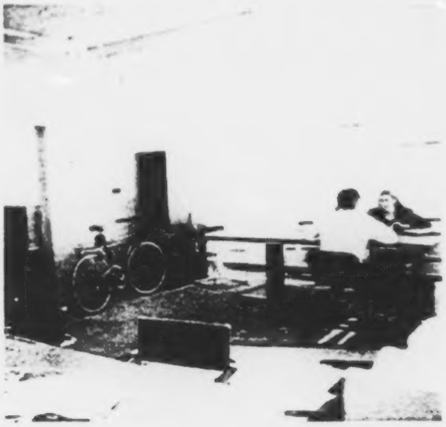

Photo 16: Small Meeting in the Lunch/Break Area

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Photo 17: Creative Discussion Amongst Cubicle Workstations

Photo 18: Group of Cubicle Workstations

Technology Differences

Table 8: Comparison of Technology Available at the Three Offices

	Toronto	Los Angeles	New York
Desktop Computers (#)	90	175	50
Laptop Computers (#)	20 (for out of office use)	100 dedicated 50 first come, first served	60 first come, first served
Client/Server Environment	⊘	✓	✓
Network Outlets for Laptops	⊘	✓	✓
Document Scanning	⊘	✓	✓
Wireless Telephones (#)	⊘	150 (plus 150 stationary)	120 (plus 20 stationary)

The technology at both virtual offices was similar, with nondedicated laptop computers, client/server environments, wireless telephones, and network outlets. The NYC office implemented document scanning on a large-scale basis: everything anyone wanted to keep

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was scanned so that the paper copy did not have to be kept. Los Angeles introduced scanning as well, but was not utilizing it to the extent that the NYC office was.

The Los Angeles office had a telephone server system in which each individual was responsible for going into the system and indicating his/her status and where calls should be directed to, i.e., in office, to extension; in office, to operator; available on pager; unavailable, all call to voicemail. The voicemail system also provided an option of pressing zero to reach someone else for personal assistance (typically not a main operator but a more junior person on the account team). The server provided the opportunity for individuals to check on others' status and to page them. Every night all extensions automatically went back to "unavailable, all calls to voicemail." New York City's office did not have such a telephone server system but employees were able to direct calls using their voicemail system on a more limited basis.

Findings

The findings are organized by the following major topic areas:

- Response to the Virtual Strategy;
- Work Patterns;
- Individual and Team Communication Issues; and
- Client Response.

It should be noted that these findings are primarily based upon interviews and observations of a few selected account teams at each Chiat/Day office from January through May 1995. As a result, findings may not be characteristic of every employee on every team in each office. Further the response to the virtual workscape have been and will continue to evolve such that what was true during the time of this study may not be true six months or a year from now.

User Response to the Virtual Strategy

Overall, employee response to the virtual office strategy at the LA and NYC offices was favorable. Users at both sites frequently cited the following advantages to working virtually compared to a traditional office environment:

- flexibility in work location;
- flexibility in scheduling work time according to individual needs and preferences; and
- remote connection to the office when not physically there.

While employees appreciated the freedom and flexibility the environment offered, they also felt that there were certain disadvantages:

- no personal ownership of office, desk, telephone, filing;
- difficulty in getting acquainted with other employees; and
- decreased socializing within office.

Interestingly, however, these drawbacks did not outweigh the benefits users attributed to the workplace system.

> I kind of miss a nice office....[But] I couldn't go back to that way of doing things...
>
> Account Planner, NYC

> I miss the desk. I do miss files...[but] I still find a way to do [my work]. And you know the best thing about it...I'm really streamlining my files, what I need to know. I like the familiarity of it [having a desk]. But at the same time, I really enjoy this environment.
>
> Account Executive, NYC

One interviewee mentioned that the virtual component may facilitate the workaholic personality. He reported receiving e-mail at all hours, day and night. No employees, however, mentioned feeling overwhelmed or burned out. One Creative in NYC mentioned that "The one thing is that you feel like you are always on call. ...If I don't feel well, I'm still like, 'Call me. I'm at home.'" At the same time, she stated that she loved her job, loved what she was doing, and had a personal stake in the project. She did not feel that it was a burden.

Some indicated that their work focus changed with the virtual office. They were now focused on results instead of time spent in the office. While in the past they took an hour lunch, they were now less likely to do so; if they had time to spare, they left early. As one Account Planner said, "One thing about working this way is that now I can come in whenever I want...I'm usually in the office by about 8:30. In my last job I was *supposed* to be in by 8:30 and I couldn't seem to make it. You get more focused on what you have to do than when you have to be here."

Turnover

Turnover rates before and after virtual implementation have been relatively unchanged except for an initial loss of employees (over ten percent) immediately following the virtual office implementation at NYC. (The agency believes this was due to a more aggressive implementation with less flexibility in employee adoption at the NYC office.) At LA for instance, turnover rates have remained around 22%, a reasonable number for the advertising business.

Technology

Considerable expense was put into upgrading the technology (just under $4 million at LA alone). Individuals initially were so concerned about getting a laptop computer or telephone that they hoarded this communication. One woman checked out a laptop and keeps it at home even though she usually works in the office on another computer. Both offices had to provide more laptops and telephones than they had originally planned. The LA office had gone to assigning much of the equipment to individuals or to account teams.

The available technology, including laptop computers with high speed modems, was not heavily exploited for remote work or collaboration. It was used primarily for keeping in touch with one another and for limiting the need for paper copies of everything. The client-server computer environment enabled individuals to file everything related to the account in a central location, accessible by all. This appeared to be more heavily relied upon in the Full Virtual environment.

The wireless telephone system was used as a resource for finding and/or leaving messages for other's within the office. It did not eliminate people searching for others by walking around the office, however. This was in part because individuals did not reliably carry their phones as they moved around the office so when calling a coworker employees came to expect only to reach voicemail. Laptop computers connected to the central server and an e-mail system allowed those who were traveling to remain in touch with their team.

Work Patterns

We examined employee work patterns at each office to discover how and why they varied. Work patterns were important because research indicates that aspects of the virtual office such as flexibility of schedules and use of team spaces impact team coordination and solidarity (Rosen, 1989).

The Toronto office had dedicated cubicles for everyone resulting in individual's daily work time mostly spent in their own space. Employees moved to find people or information and for group meetings in the board rooms. Most employees were tentatively excited about their office going "virtual" and having flexible work locations. Some had reservations that no one would work in the office anymore. As one Account person said, "I hope that people come into the office a lot." An Account Director voiced a common fear, "One challenge I'm concerned about is how to get everyone together."

Work patterns at the two virtual offices varied primarily on the use of team (project) rooms and the dedicated spaces in Los Angeles. At the New York City office, employees came in, checked out a mobile phone (and a laptop depending upon the work and work location planned), got a cup of coffee and a bagel from the Clubhouse, and went to the work site chosen. If the work required a lot of computing, they chose a carrel. If they wanted a quiet space to think, they used their project room until it got too busy. If they needed interaction, they were likely to sit in the Clubhouse (with or without checking out a laptop). As their needs changed throughout the day, they moved to different work spaces: the project room was used for account team meetings and the Clubhouse was used for smaller group brainstorming sessions. It was unusual for most employees to work remotely on any regular basis. Individuals occasionally worked at home before coming in or left early to work at home but did not come and go many times throughout the day.

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At the Los Angeles office, Account Services and Account Planning employees (sometimes Media) used their project rooms as a home base. These groups were likely to start their day in these spaces, getting project updates and determining activities planned for the day. As more team members arrived in the project room, unless interaction was needed, some employees moved to find a quieter space. If they wanted to stay in close contact but not be in the midst of everyone, they moved to a nearby (within sight) workstation. The library was used if they really needed strict privacy. As the day went on, they moved in and out of the project room to communicate with others for planned and unplanned interaction. Many others (Creatives, Production, and Traffic) had dedicated areas. As a result, they would go directly there and usually stay there all day, unless meeting with someone or taking a break. Those with no particular project room identification and no dedicated space were somewhat more mobile from day to day. Although individuals rarely spent full days working from remotely except when traveling, use of the office was fairly fluid: some occasionally worked at home in the morning or afternoon and others left late in the afternoon to go work out at the local gym or run errands but stopped back in the office again before going home.

Offsite Work

Very few individuals at either virtual office worked offsite much except when traveling. Several variables influenced employee use of remote work locations. These included:

- Respective disciplines/project stages;
- Technology constraints;
- Management practices; and
- Demographic variables.

Disciplines

The degree to which people worked outside the office differed substantially by discipline. Disciplines with high degrees of creative concept or strategic development and concentrative tasks more frequently worked away from the office. This group had less need for constant interaction with the rest of the team. Creatives, and to some extent, Account Planners formed this group. Reasons for working offsite included:

- Less noise;
- Fewer interruptions;
- Ability to display thinking/dedicated for specific time; and
- More comfort.

Creatives

Creatives considered the ability to work remotely one of the biggest benefits of the virtual workplace system. Creative teams rarely brainstormed in the office. They felt that the offices were too noisy and open to interruption. In addition, they liked to display ideas on walls and leave them posted for several days to inspire further brainstorming. This was not possible in the virtual office. Many Creatives worked at home or in areas they thought stimulating. A junior Creative team in NYC preferred to meet at a team member's apartment to develop concepts. They eliminated many office distractions; they could leave their materials on display; and they eliminated the daily commute.

A senior art director in LA followed a similar work pattern:

> There are some times when we can't be mobile at all, depending on what stage of the work you're in. But when we're sitting around concepting ideas, like with the partner I worked with before, we'd go to the golf course in the morning and talk ideas. We'd just look for a quiet environment. ...We'd come up with maybe as many ideas there, if not more, as sitting in an office, having the phones ringing.
>
> So if you're concepting you don't always need to be here. Sometimes we'd work at my partner's house or we'd go to a restaurant or whatever. ...you're really just looking for a quiet place where you can relax and not deal with all the interruptions. ...Another partner I used to work with, we'd go sit at the beach.
>
> Sometimes if there are really big projects going on and people really want to wallpaper the walls with ideas, they'll rent a hotel room so that nobody knows where they are and they can work on their thing and not be bothered.

Most Creatives reported using the office primarily for project "administrative" tasks: coordination, presentation of ideas, and group feedback. However, Creatives that preferred computer-aided design (instead of drawing them freehand) found themselves limited to the office.

> For [many] artists, it's hard to work out of the office after the concepting stage because of the technology limitation...We need more than just the laptops that the writers use. We need powerful computers for graphic work, and scanners.
>
> Creative, LA

Account Planners

Account Planners spent a large portion of time offsite conducting focus groups and interviews or attending client meetings. When not traveling, however, they spent time in the office for meetings, saving more concentrative work for home.

> I kind of thought I would be working at home more. It's not the nature of the task, but the nature of working with other people [that keeps me from working at home]...
>
> If I have writing work and thinking work to do, I will go home and do it...
>
> I love the fact that if I'm at home, I'm not out of touch...
>
> Account Planner, NYC

However, while the remote technology kept these employees connected to the team, particularly when traveling, it did not satisfy all communication needs. One Senior Planner in LA initially took advantage of the ability to work at home, but found she was not as effective:

> I probably worked [initially] offsite too much and the reason I came to that conclusion was because I started to feel disconnected. If you're not around you are not as powerful as when you're meeting with people and having that kind of energy. So that was a lesson learned.
>
> I thought the exciting part of this was that I could telecommute and work from home ...that might be okay at certain points or certain positions but in the capacity that I work and given my role in the team, I don't know that I have the option to take advantage of that as often as I would like. I'm more effective if I am interacting in person.
>
> Account Planner, LA

Disciplines with high degrees of interaction, coordination, and administrative functions worked primarily in the office. Account Services, Media, Traffic, and Production employees formed this group. Explanations for these work patterns included:

- The ease of locating people in the office;
- Speed and ease of establishing face-to-face meetings, as opposed to calling or leaving a message for someone; and
- Quick, spontaneous interactions with other employees.

Account Services

Employees in Account Services very rarely worked outside the office unless at a client site. If they worked at home, it was for writing reports or other tasks needing isolation. In general, however, the employees reported working at home as unproductive because they needed to meet face-to-face with people. They often evaluated hard copy (layouts, drawings, etc.), which was difficult for them to do from home. They were responsible for project coordination, and assuring customer satisfaction which required closely monitoring each group's progress. While they could conduct some of this work remotely by e-mail or telephone, they preferred face-to-face contact.

> I don't spend too much time actually working from home. I think I work best when I've got other people around to bounce ideas off and to be in a group. … Everybody else probably spends more time than I do [working at home] just because I think my job is less working on the computer and that kind of thing.
>
> Group Account Director, LA

> We're in the people business, so we're either talking about work, reviewing work, talking about new work, talking about old work, doing new work...Meetings is what we do....We're not in the clothing business. We don't have a garment to show. We have minds. We have people. So meetings is what we do.
>
> Group Management Supervisor, NYC

Media

Media buyers spent most of their time on the telephone with advertising departments and vendors, obtaining services or products, allowing them to work from remote locations more than many groups. Media planners, on the other hand, worked in the office, in part because their work was technology-based. Media employees performed market research, which, in addition to requiring a computer, also called for video equipment, magazine articles/ads, other hard copy. These materials were located in the Intelligence Center (NYC) or the Resource Room (LA).

> We [Media] find we're on campus quite often. We tend to meet a lot, and often we have to meet with graphs... We have to do a lot of analysis. You could do it from home, but all the resources are here, the computers [here] are better.
>
> Media Director, NYC

The Media Director in LA felt, as a manager, he needed to be in the office but, "[virtual] does eliminate some of the tension and pressure of I've got to be here. Like this morning my wife was sick and one of the babies was sick. I don't feel like I have to get out the door at 8:00, I can make phone calls from home, I can plug the computer in...." The Media Director in NYC shared this view, "I delegate more work now than I did before [virtual]. Because of that, I need to be accessible. It does allow me to do certain other things. Like, I volunteer during my lunch hour."

Support Functions

Traffic and production employees generally worked in the office and used the ability to work remotely as a tool to provide flexibility, to remain home longer in the morning or to do personal errands during the day.

> I don't work at home, though I'd like to. I don't because the accounts I work on are really busy. When one's done, the other three are up … Traffic in general, tends to be an in-the-office type of job. ... I'll program my phone to go home so I'll

> get phone calls but yet I don't come in to work till 10:30. I wouldn't spend the whole day at home.
>
> Print Traffic, LA

The following diagram summarizes the tasks employees preferred to accomplish at home (or other remote locations) and in the office.

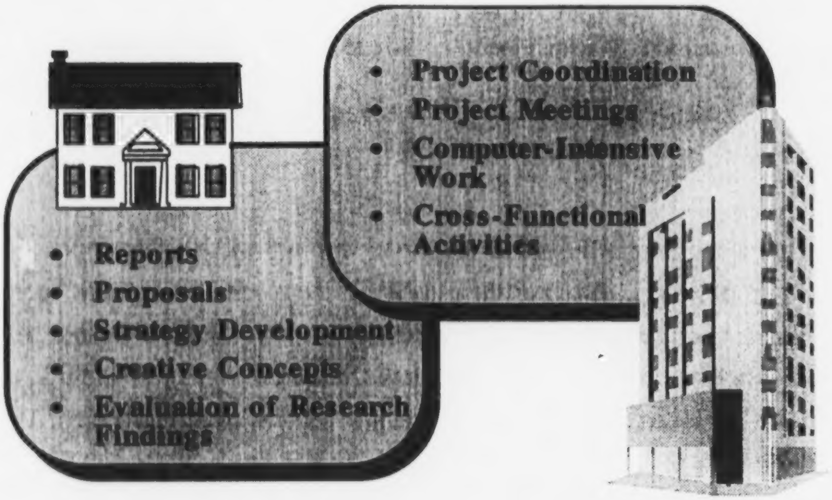

Figure 19: Tasks completed at home (or other remote site) versus the office.

Technology Constraints

Technology limitations precluded some Chiat/Day employees working remotely. Many Creatives who preferred to use computer-aided drawing and simulation programs were limited to the office by the powerful electronic technology needed. Account Services employees reviewed hard copy layouts not available digitally. Media Planners often needed to access information contained in in-office databases such as CD-ROMs in the resource room. Production required in-office technology such as the recording studios.

Management Practices

One primary difference between the two offices was management support for remote work. Managers in NYC were fairly open to the idea of working remotely, taking advantage of it themselves and projecting to their employees that it was proper working procedure. In LA, however, employees felt that their managers openly objected to the idea of working remotely, or did not do it themselves, thus indicating to employees that it was not a legitimate practice.

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> I haven't taken advantage of [working at home]. I've done it twice and both times it was just for the morning... I haven't for a couple of reasons: 1) Guilt, I feel I need to be accessible to people, I should be at the office and it's not very fair to not be there; 2) Part of it is just getting used to the idea that it's okay to work at home; and 3) It's weird for me to conduct business from home.
>
> Group Account Director, LA

There was a trickle-down effect: Because the account directors did not work from home, everyone else on the accounts felt that they could not.

> People that I work with tend to come in everyday... The account director comes in everyday and good or bad [that] has an effect on the people that work on that group.
>
> Account Executive, LA

> The virtual office is not quite what I expected and probably a lot of that has to do with the account director. He and the senior planner like face-to-face interaction and like coming in to work. It's not that they would have a problem with you working from home, it's that they don't organize their accounts in a way that makes it that easy for you to do so... I'm likely to work at home when they are both out.
>
> Account Planner, LA

Table 9: Management and Cultural Differences Regarding Work Location

Demographic Variables

While newer and younger employees at either location did not often work remotely, the reasons for this were somewhat different. In NYC, the younger employees reported that it was easier for them to learn their jobs in the office. They were around more senior people and they could get help easily on problems. A young Associate Media Planner reported that he very rarely worked from home; in fact he has not worked a full day at home since that option became available. His reasons were that he liked coming into the office. It was a fun place to work and he liked the energy. A young Account Executive reported similar work patterns and explanations. Others have suggested

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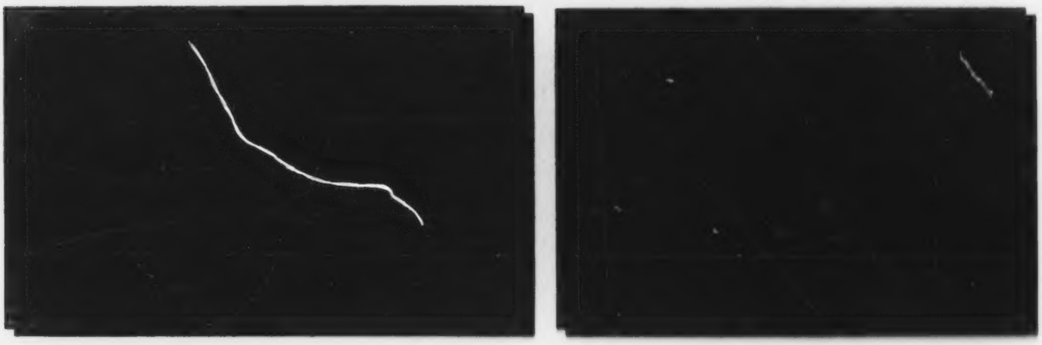
that a reason for younger employees to work in the office might also be the insecurity of "not being seen;" that if employees are not in the office, their bosses might feel that they are not working.

Although young employees in LA also enjoyed being in the office, their primary reason for not working from home was because their superiors did not. Or, as an Account Planner said:

> It became frustrating because certain people never ever work from home and there's kind of a sense from some team members that if you're working from home you're not really working. It's not working real well if that's the perception.

Table 10: Reasons for Working Primarily in the Office



Differences in Office Setting Use

Employees at the three research sites showed distinct differences in choice of work location in the office. These differences in setting use resulted from the use (nonuse) of dedicated workstations, office size, layout and number of office floors, and the availability and location of common areas. We focused on two primary settings: the Clubhouse and the assigned project rooms.

The Clubhouse

The Clubhouse was a large, open area where employees could work or socialize, either individually or in groups. Both LA and NYC had such a facility. The rooms were equipped with server connections and dedicated telephone lines as well as a kitchen, televisions, group meeting spaces, etc. Use of this space was quite similar at these two offices.

Peak periods of activity in these areas were early morning, lunch time, and when free snacks were available. There were a number of reasons why people went to the Clubhouse:

- Work breaks;
- Socialization;
- Private phone conversations;

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- Spreading materials out;
- Small group meetings or work sessions; and
- Or even to work, for certain groups who adopted it as their home space.

Most liked the space but could not do concentrative work there: instead they used it primarily for taking a break and socializing. As an Account Director said, "I'll come down to the Clubhouse but not that often. It's too noisy in there. It's great to socialize and converse but I don't spend a lot of time there." For some who used it to work on nonconcentrative tasks, the Clubhouse provided a means to "get away, but still remain accessible [face-to-face] if and when I'm needed."

Others conducted group meetings, either at the large tables or in informal seating areas. Many employees chose the Clubhouse as a location for making telephone calls. The space had a "background buzz," or white noise, that provided a sense of audio privacy. However, many felt that the noise often became too intrusive. As an Account Executive said, "Sometimes I work in [the Clubhouse] when it's too crazy [in the project room] but people always think I'm at a party or something when I'm on the phone. So when I'm on the phone I'll walk."

Most departments did not use the Clubhouse regularly. The Creatives were rarely there. One Creative described it as "a highly disruptive place, where I tend not to get much work done."

Some employees checked out a computer from the concierge desk, and then work in the Clubhouse for most of the day. For example, Media employees frequently worked there, commandeering several tables for the day. The "players" often changed, with some leaving the Clubhouse while newcomers replaced them. The Media group socialized, but were usually working (both individually and together). Other disciplines noticed this behavior, commenting that "all [they] ever saw in the [Clubhouse] were Media and Production."

In LA two groups worked in the Clubhouse on a regular basis: certain Media employees and the Spanish branch of Chiat/Day, Enlace. Some Media employees adopted one of their account's project rooms as their home base and generally worked in or around it. Of those who had not adopted a project room, some adopted the Clubhouse as their "home base."

> More than any other department, virtual's been hard on [Media] because they are reliant on files, they are reliant on computers, doing calculations and all that kind of stuff. They need lots of space so that they can spread out. So they take one of these booths [in the Clubhouse] and try to dominate it...They don't have a home and they have the hardest adjustment period based on what they do. They work together, more than some other departments...
>
> Account Director, LA

Enlace had no project room of its own and also adopted one section of the Clubhouse as "their" area. As an Account Executive explained, "The same people are always in the Clubhouse. I would never sit at that table because that's Enlace's table."

Differences in Use of the Clubhouse

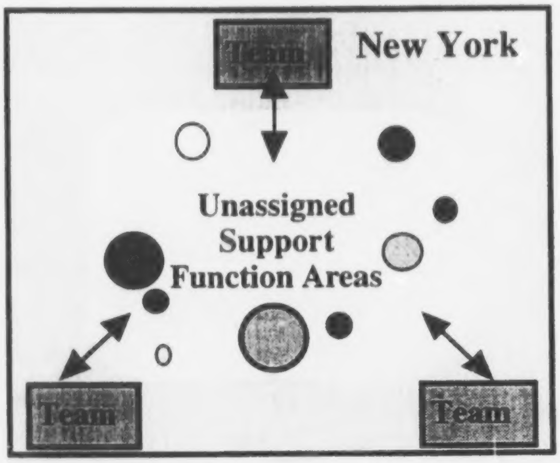
Accessibility

In large part due to the layout of the NYC office, employees chose to work in the Clubhouse if/when their jobs required a high degree of accessibility. This room was located in the midst of the doughnut-shaped single-floor office, adjacent to both the kitchen and the concierge desk. As a result, it received a lot of traffic. Further, because it was not very large, it often was quite densely occupied. People working there were thus very visible.

Certain departments such as Traffic and Production supported all accounts and SBUs, and were part of many teams. Because they had so many diverse accounts, they tended not to think of any one account team's room as their "home base." For effective job performance, personal accessibility and access to others were important. These employees set up in the Clubhouse for the day, and constantly "snared" people as they walked by. Sometimes others stopped by their tables on their way through the Clubhouse.

This arrangement created a highly fluid communication network between the support functions and the team members. Spontaneous interaction occurred frequently, with little effort by either the support people or the team members (i.e., the support people could "catch" people passing through the area and team members knew where the support people would be located).

One Group Management Supervisor described his Clubhouse use as bringing the information and the employees to



No Assigned Areas

- **Support functions work in accessible, highly visible areas (the Clubhouse)**
- **Synergy between teams and support; highly fluid**

Figure 20: Influence of space use on interaction among support functions and rest of team at NYC.

him. Instead of him having to Quickmail or locate people, they could easily find him in this location. He described the space as a good means of announcing his presence in the office and his availability to those needing to speak with him.

Unlike the NYC facility, the LA office did not have one central office location. The offices were located on three floors, with an additional wing off each. The Clubhouse was situated in the second floor wing, which was not a traffic thoroughfare. Employees did not come into the Clubhouse for the purpose of making themselves accessible or to access others.

Social Versus Work Setting

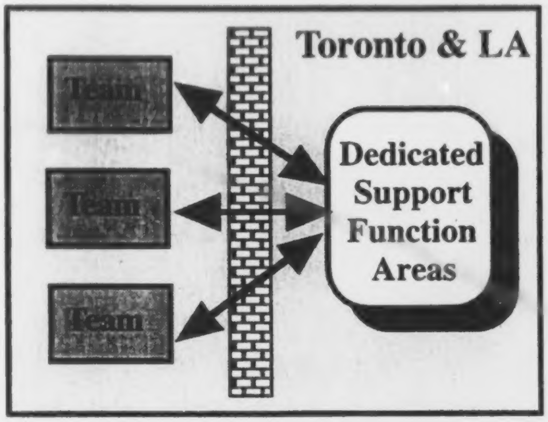
Interestingly, some NYC users described the Clubhouse as a very nonsocial setting, even though it was designed for just such a purpose. When describing why she felt that the virtual office was "less social" compared to the original office, one Creative described:

> You just don't see their faces. If you were walking past a cube, you might pop in and just say 'Hi.'...You don't really do that here. If you pull up a chair, you're taking someone's chair away. So you stop, you say what you have to say, and you go on. I think one of the problems is the Clubhouse, which is supposed to be a social area. People come in with their computers and they sit down and they're doing work. It's not really conducive to socializing.

LA's Clubhouse accommodated both socializing and working. It was a large space that was not as densely packed as NYC's Clubhouse and had slow times in the late morning and late afternoon.

No Clubhouse - The Conventional Office

The Toronto office did not have an equivalent Clubhouse. There was no space for people to sit down in a central location and be accessible like the NYC Clubhouse. There was a kitchen and small lunch room at the corner of one of the office's three floors. This location was used for small meetings when all the conference rooms were full and was the site for the office's



Assigned Areas

- **Support physically separated from teams**
- **Limited synergy between teams and support; static**

Figure 21: Influence of space use on interaction among support functions and rest of team at Toronto and LA.

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weekly Friday afternoon "tart cart" refreshments and social time. There was limited use of this space.

The lack of a convenient, centralized common area created a barrier between support functions and account teams. Whereas these groups developed a free-flowing communication network in NYC, this did not happen in LA or Toronto. Because of space design, support functions were physically separated from the teams. Thus, for these two groups to interact face-to-face, members had to actively try to locate one another.

Project Rooms

The LA and NYC offices assigned project rooms to the accounts. In some cases, accounts in the same SBU shared a room because of insufficient space to house each account in its own room. The rooms were used in a similar fashion at the two sites.

The project room was the account "headquarters," housing all materials and information pertaining to the account as well as "central command," where account teams received assignments, discussed progress, and conducted meetings. In most cases, smaller groups would then collaborate on parts of the account work, either in the project room or in other outside locations. Although the rooms were originally intended to serve as creative hubs or "war rooms," they appeared to be primarily for administrative tasks, rather than creative idea generation or brainstorming.

> We used to have our own area...We were by account, so you kind of always heard things that were going on. The [project] rooms are supposed to do that, but I don't know.... the account people, they mainly use it. It's kind of hard to brainstorm when there are all these account people in there.
>
> Creative, NYC

> I think the project room is a great innovation. The problem is, we're supposed to use it for great communal thinking and for communal working, which is not an ideal way to use the space because that means it really is like grand central station, making it harder to do some of our best output for the client on a regular basis.
>
> Account Director, LA

The project rooms gave the employees a sense of team identity. They associated themselves with an account and a project room, rather than a departmental area. Further, the rooms served to keep the group together and informed of team progress.

> When people are 'gelling' it's because everyone is inputting. If you have individual offices, you're handicapping that ability to happen because those meetings only happen when they are designed. When there is a project room, you're always

> together. Or, rather, we have the capability to always be together. Therefore, we're getting the input without having to have a planned meeting.
>
> Group Management Supervisor, NYC

Account Services followed by Account Planners were associated with the project rooms more than any other discipline. One Account Supervisor reported that working in the project room made her accessible to others, which was important to her job, "I pretty much stay in the project room, which makes it easier because everyone knows where to find me and since I get asked so many questions...it's easier to do it in person."

Some departments most often used the project rooms when they needed to talk with an account employee. Others used it when they could not find a place to work. As a Creative stated, "My partner and I were working for awhile in the SBU room because that was the only place left."

> [The project room] is really a place where we all can sit around and talk to one another about what's going on or find out what they've been up to...and we'll concept in there for small projects. I've drawn up storyboards in there because there was nowhere else to work.... And Traffic will be in there because that's where they find out what's going on.
>
> Art Director, LA

Differences in Use of the Project Rooms

Amount of Use

There appeared to be heavier use of project rooms in LA than in NYC. The physical design of the space may have influenced this usage. In LA, each project room was surrounded by cubicled workstations. The closest workstation to each project room was dedicated to the Account Group Assistant. The remaining workstations were nonterritorial and free for anyone to use but were most often used by an account person on the team(s) that "owned" the adjoining project room.

> Typically I'll sit at the desk outside the project room next to the Account Group Planner if that is open because it helps to keep the group near each other. If a whole bunch of us are in the office that day and we're all trying to work out of the project room, you can't..
>
> Account Executive, LA

Because they were so heavily used in LA, Account Directors had difficulty working in them.

> I don't like to work in the project room...It's too noisy...The project rooms tend to be a little bit too social, like a social home room. While people have their best intentions to work real hard, they get distracted very easily.

> I think the project room is best for group meetings and that's it. I think it's real tough for people to work in there on an individual basis and be productive.
>
> Account Director, LA

Peer Policing Versus Modification

In NYC, primarily in high activity areas such as the project rooms, there was a certain degree of "peer policing," where coworkers ensured that others were not abusing the virtual office concept. Employees were sometimes "bumped" (their work materials were moved if they weren't physically there) or asked to relocate if they had been in that place too long. The fact that some employees entrenched themselves at one site indicates that the "nesting instinct," or the need to claim permanent space, still existed for some employees.

> Some people tend to set themselves up in the project room because, for whatever reason, it's not being utilized much. They sort of take over the space, make it their own, until someone tells them to move.
>
> Media, NYC

The nesting instinct was also revealed by the use of the project rooms in LA; however, instead of peer policing to keep the office working virtually, employees seemed willing to modify the system. An Account Executive explained, "I work in the project room. I've got my seat; everyone has assigned seats. Not officially, but everyone just knows."

> I always go to the back corner [of the project room] and set myself up. ...We kind of established some rules at the beginning as far as what was allowed and what wasn't allowed in the project room, kind of like a code of ethics.
>
> Account Supervisor, LA

When employees started leaving their materials all around the project room, it was accommodated more readily in LA. "It's become a place to dump everybody's files... But I think there's a natural tendency for people to want to nest and I don't think you'll ever be able to take that away.

This acceptance may have led to a greater sense of territoriality at LA compared with NYC:

> The project room is my home as much as anyone else's. I feel as welcome going in there to work as anyone else. But some of the account people kind of have their own seat while I don't. The closest to my designated space is that carrel outside and it works better for me.
>
> Account Planner, LA

> Project rooms are mainly for account people, I think, fundamentally. Media people sometimes work on a lot of different accounts so they could work there, but I think

> they feel like, 'Gee, they have all their stuff here, I'll just go to the library or the Clubhouse' and soon that becomes their home.
>
> Account Executive, LA

No Project Rooms - The Conventional Office

The Toronto office lacked assigned or dedicated project rooms. Instead, users had access to unassigned conference or board rooms. No single team was able to appropriate, personalize, or store their possessions in the room. Conference rooms located near specific teams often became associated with that team, but could still be scheduled on a "first come, first served" basis.

One board room was commonly dedicated to new business pitches; in effect, functioning much like the team/project rooms of NYC or LA during a campaign. Team members spent much time working in the room, posting conceptual materials on the walls and leaving other campaign materials in place. After the pitch, the room was cleared for another group.

Project Coordination

Project coordination is critical to the success of work teams, influencing all facets of the project, from completion time to quality of work. Research suggests that as size of organizations increases, effective communication for coordination is more difficult (Snyder & Morris, 1984). We examined project coordination at the three sites to discover whether differences among the environments influenced this factor.

Theoretically it would seem more difficult to coordinate projects in a Full Virtual environment, where employees work remotely and none have designated spaces. In reality project coordination worked better in the Full Virtual environment (NYC) rather than the Modified Virtual environment (LA). Dependence on formal or informal communications seemed to be the critical factor determining this result. Employees in the Modified Virtual office relied heavily on spontaneous interactions to coordinate projects. In the Full Virtual office, spontaneous interaction assisted coordination efforts, but more formal meetings primarily ensured that everyone was kept updated.

Status Meetings

The purpose of status meetings was for project tracking, updating group progress and developing future action items, and discussion of concerns, changes or new directions. Ideally, a meeting was held at the beginning of each week with all employees involved attending, including: Account Services, Account Planning, Media, Creative, and Production and Traffic if necessary. At times,

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depending on the project timeline, some didn't need to attend. For example, one Account Planner mentioned:

> The status meetings are once a week. Every account has them, everyone is supposed to attend. I might not go if the meeting has to do with media schedules, which I've got nothing to do with. ... It's not very relevant to me. [More relevant] are strategic discussions: where do we go next, how do we change things.

Account Executives usually coordinated the meetings. The Account Executive met with each discipline, discussing their weekly progress. He or she then created a report summarizing the project status. This report was made available electronically on the server, and was also distributed at meetings. Even without this report, however, people knew the meeting agenda and content:

> I know this [status meeting today] is important because on Quickmail there's a note from the Account Supervisor talking about a conversation she had with the client over the weekend.
>
> If you walk into a status meeting and you're shocked by the news that you hear, you're not talking to your Quickmail, you're not hearing what's going on. Maybe you've been out of town [on vacation].
>
> Account Planner, NYC

Small Informal Meetings

Many employees felt that more smaller meetings, called as needed, were held throughout the week than in the previous environment:

> It seems like we are meeting more in this environment than in the previous environment. This could be because we don't seem to have the same checks and balances ... You have to make informed decisions, so you meet with people.
>
> Account Executive, NYC

Differences in Use of Meetings

Formal Meetings

While status meetings were heavily relied upon and held consistently in NYC, many LA account teams rarely held such meetings. The need for such formal meetings in LA appeared to be most influenced by regular project room use by the main team players, but also by the project stage, the account team tenure, and the workstyle of team members. Formal meetings were particularly important when projects were nearing (and in) production stages.

Newer account teams appeared to be more reliant on regularly scheduled formal meetings than account teams who had collaborated for a longer period of time. The Account Executive of a long-tenured account team said:

> We don't have status meetings. Now, even when we were in production, we talked daily with our producer so we didn't need to meet weekly. I used to do a status sheet and by the time I finished it, everything had changed... When accounts get lots of things going on, they may need to meet to keep track of everything that is going on but ours is very concentrated so it doesn't make that necessary.
>
> We have more spontaneous meetings than we used to...after three years of working together, we don't need formal meetings...we just work together now.

Poor attendance at scheduled meetings limited their use. An Account Supervisor at LA explained:

> This environment lends itself to emergencies, or 'this just happened and I got caught into it' and so we used to try to schedule meetings and no one would show. I think because this environment was so casual and unstructured, people seemed to take meetings less seriously.

Informal Meetings

While each office had many daily impromptu meetings, collocation of teams in project rooms in LA (more so than NYC) and use of team areas in Toronto resulted in heavier reliance on this informal contact for project coordination at these sites. This interaction replaced weekly status meetings:

> There are less scheduled meetings because I see the people a lot more. There are more informal discussions on a day to day basis...99% of the time I can find the account people in their project room.
>
> Print Traffic, LA
>
> Impromptu meetings are easy to have because our account director [on multiple accounts] is around the project rooms (which are next to each other). The Account Planners are [in the project room] as well so we're all generally in the same vicinity.
>
> Account Executive, LA

Communication to coordinate happened naturally within the teams since core members sat together, shared information, and overheard conversations throughout the day.

> When you're physically located together, it's very easy to grab five different people from five different disciplines and grab a room and sit down and talk about how you're going to handle something... Try doing that in a traditional agency. You'd have to schedule a meeting for two weeks from now to try to get the account person, the media person, and the production person together. ...
>
> Account Director, Toronto

However, as one Account Supervisor in LA pointed out:

> What happens with these impromptu meetings is that a lot of times not everyone is there... Many times, it's spontaneous almost to a fault because you tend to have the conversation with whomever is in the room and you might miss someone who maybe should be there.

An Account Executive agreed with this assessment:

> There are a lot of impromptu meetings. The bad thing about them, though, is that if you weren't around at that moment, you feel out of the loop but how could you have known?"

Finding Others for Quick Meetings

Office Size

According to an Account Executive in NYC, informal interaction for project coordination was not any more difficult in the virtual environment. Because of the small office size in NYC and Toronto, it was fairly easy to locate people.

> One positive benefit to the new office is that now people are located on one floor as opposed to three, so it is easier to locate people. I'll take one lap around the office to see if I can find them. If not, I just call and leave a message, and I know they'll get it. If it's not too critical, I'll send Quickmail.
>
> Account Executive, NYC

> ... this office is probably even more conducive to [project coordination] because now it's just one floor, and I know where people hang out.
>
> Account Executive, NYC

In the larger LA office, when an individual was not available in one of a few predictable places, it became difficult to find them for a quick meeting. According to an Account Executive, "Now, if someone is not where you expect you might have no clue where they might be."

Assigned Work Areas

Both LA (for some disciplines) and Toronto had assigned work locations for the support staff. These locations helped individuals find one another by providing a starting place to look.

Access to Information via Server and Project Rooms

In addition to status meetings, employees could check project status by accessing documents on the file server. Employees found information in central files and team members filed all relevant materials, such as contracts, proposals, and reports in account folders. In LA, however, the server was a less reliable source of information than in NYC: not all accounts kept updated project status records there. Toronto's Conventional office had no central server, making face-to-face communication and hard copies of reports especially important.

Electronic mail (Quickmail) messages were used to summarize client conversations or team member discussions so information was gained in this manner also.

Individuals could also visit the account's project room to check project status in the virtual offices. Team members posted materials on the walls, displaying account progress.

Communication to Inspire—Brainstorming

Brainstorming, or idea generation, among team members can be vital to the success of not only creative agencies but any organization in which coworkers or teams benefit by bouncing ideas off one another (Allen, 1977). Physical design of offices influences communication of various types including brainstorming (Allen, 1977; Zahn, 1991). We examined where and how often brainstorming occurred at the various offices.

Employees in all three office environments reported that creative concept development and strategic development or evaluation were difficult to do in the office. The main reason for this was that quiet work areas were difficult to find in all the offices.

> I find it very hard to focus here...When I wanted to focus in my old company, I'd shut the door. Even if it was glass, it was like, "I'm working, don't bother me." I have to focus, and I really can't do that here. I'll knock out a quick proposal. The brain work I do at home.
>
> Account Planner, NYC

> That's one of the biggest things if you talk to a lot of Creatives...When you sit down to concept you really want a quiet place away from all the interruptions...To get to the core idea you need to be out of the office.
>
> Creative, LA

A few small enclosed office/conference spaces were used when available. A Creative sometimes used the small enclosed rooms when she needed a quiet place to brainstorm. An Account Planner

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explained, "A lot of times we'll do brainstorming [in the office]...The Creatives, some Account Services people on the team and I will go into a small project room and kind of just start thinking."

Besides the small project rooms, no other particular space was mentioned as strictly facilitating this activity. The project rooms, originally designed to encourage brainstorming, were used more for administrative functions. Informal idea generation, however, may have increased as a result of the project room usage. If the Creative group was discussing a project in the project room, and someone from Media or Account Services entered, they might suggest a couple of ideas:

> If you're just sitting in the project room, you may throw in your two cents worth. That's different than in the old office. It's easier to do here, easier to collaborate.
>
> Media Planner, NYC

> ... people will see what [the Creatives] are working on throughout the course of the development, and give them ideas according to their discipline; what they know about the product, what they know about the customer. It seems this kind of input occurs on a more informal basis than in formal meetings.
>
> Group Management Supervisor, NYC

At the same time, however, most employees thought the virtual environment was highly conducive to creative thinking and expression. Even the Creatives seemed to feel that the virtual office was good for team creativity and brainstorming sessions; it just was not effective for the intense (individual) development of creative concepts or direction.

> We have great relationships with our creative teams. They'll come over and say, 'We thought of this idea, would it work?' And we'll make suggestions and bounce ideas off each other.
>
> Account Executive, LA

> I think what [virtual] has done is it has caused a huge jump in the energy level which is very positive for this place. It's very vibrant. It used to be very quiet with bursts here and there. But I feel like there is a buzz here now. I think that that is good for a creative environment and when your product is based on creativity I think that is real good because it keeps you energized.
>
> Account Director, LA

Even at the Toronto office joint informal brainstorming among account team members was frequent and occurred everywhere.

> Brainstorming is done anywhere, it's done in the hallway, it's done in the elevator, it's done in your office, it's done in a meeting room, it's done in somebody else's cubicle, it's ongoing and fluid... You don't actually have to set up a meeting to get ideas from people... You're constantly doing it...Most agencies, ...the way they

> work is you sit and organize yourself, then you set up all these little meetings to go and organize those people or brainstorm...
>
> Account Director, Toronto

Differences in Brainstorming Capabilities Across the Offices

Dedicated Creative Space

At Toronto, despite having a dedicated Creative area and assigned workstations, Creatives felt they needed to leave the office (and its interruptions) to brainstorm. A common locale was the cafeteria at the street level of the building where they could smoke and informally brainstorm.

In LA, Creatives had a dedicated area but not assigned workstations. Although their area was somewhat more secluded than the Creative space in Toronto, they still felt they were interrupted too often. And, because they did not have assigned workstations, it did not make sense to display ideas on the walls around the desk (as Creatives liked to do when concepting). That employee might be lucky enough to get the same desk the next day, but he/she would not have it next week.

Creatives at the NYC office had no assigned workstations and no dedicated areas. Looking for a quiet space, they worked out of the office more than Creatives at the other offices.

Cross-Functional Communication

> Free-flowing cross-functional communication is vital to the rugby model of teamwork in which everyone is involved throughout the process (Becker, 1990). It can be at least as important as intradisciplinary communication in predicting workplace success (Allen, 1977). Since the separation of different disciplines onto different floors limits such communication (Kraut et al., 1990) it was of interest to learn how cross-functional communication varied across the offices and what influenced this interaction.

The Influence of Office Size and Number of Floors

The smaller conventional and Full Virtual offices were more conducive to cross-functional communication than the larger Modified Virtual environment. Smaller offices facilitated individuals casually meeting during the day and, without scheduling formal meetings, resolving issues. Employees recognized where others typically worked by regularly seeing them as they walked through the small office. Thus if they realized that they needed to meet with someone, they were likely to know their location and because of the small office size, it did not take long to get there. The lack of surprises in the status meetings was one indication that employees were

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working and talking together outside the planned meetings—members seemed to know meeting content beforehand.

Because the Full Virtual office in NYC had gone from three floors to one, some felt they saw and interacted with others from other disciplines that they never would have interacted with before,

> I never had a chance to work with people in Media Buying before. On some of my accounts, we never did the buying. It was all done by outside media companies. I now know Media buyers, and I've asked them for information. Like, 'How much does it cost to buy *this*..'
>
> Account Executive, NYC

Other Influences on Cross-Functional Communication

Cross-Functional Collocation

All three offices benefited from cross-functional collocation of the core team members. At the Conventional office, employees from three of the core disciplines, Account Services, Account Planning, and Media were assigned cubicles collocated by account team. Through use of project rooms by the core disciplines, there was very fluid cross-functional communication among disciplines within account teams at both virtual offices. This affect can be attributed to users' feelings of project rooms as "home base."

> An agency works at its best when we are working as a group and feeding off of each other. If you have individual offices, by design, you're structuring yourself so that having the capability to work at your optimum is planned, as opposed to an ongoing effort. This office allows for more people to input at more time because there is less structure. There physically are no more walls.
>
> Group Management Supervisor, NYC

The Account Planner reciprocated with the comment:

> [The virtual office has] heightened the importance of relationships and counting on people and teamwork. I used to relate almost exclusively with my cubicle partner. I'm interrelating with more people on the account team now on multiple levels, which is good.

Even so, this communication left out some members of the team.

> I think, in many ways, the creative department is still, perhaps, somewhat off and slightly outside account management, account planning, and media...they don't need to be by us all the time to actually do their job... While a lot of the day to day account management work is actually dissemination of information, communication of new things, changing things... it's good to have you all together... The other

> three groups are physically closer and they are more interactive and more intertwined.
>
> Account Director, LA

Collocation by Discipline

At the Modified Virtual and Conventional offices, non-core team members were collocated by discipline. Thus, those disciplines that were in close proximity shared often and were likely to have a greater understanding of the functions performed by each. A further benefit of collocation was that when coworkers wanted to find a colleague in Production, for example, they had a starting point for looking for that person.

Use of Technology

In addition to face-to-face contact, employees in the Full Virtual environment relied more than the other offices on technology for communication. As an Account Planner mentioned:

> Communication is a little bit hard because you can be in so many different places and because we rely so much on Quickmail and voicemail that we don't necessarily run into somebody and say, 'Hey, we're supposed to have a meeting at 2:00.' If you don't check all that stuff, then you don't know what's going on. Communication, face-to-face, is probably a lot less, but the ability to know what's going on is much higher.

Team Cohesiveness

The virtual office project rooms, by bringing the primary disciplines together and giving them a "home base," enhanced team cohesiveness. While the team was close in the previous environment, they had an increased sense of team unity in the new environment.

> I feel much closer to the team than I did in the [old environment]. You have to be. I mean, I work side-by-side with them all the time. You had your own place before.... You'd go to your desk. You'd have someone sitting this far away from you, but they might not have been in your group. Now we're sitting at one table, because that's what we have. It's much closer.
>
> Media Planner, NYC

In some cases, employees from different disciplines were located physically closer; the Account Planners began sitting in the project room with the account group. In other cases, they just felt that they were closer and more interactive than in the past.

> In an agency like this where it is very creative, I think the people outside the creative department felt a little bit like, sort of, stepchildren...So I think what has

> been good is the creation of account groups with the development of project rooms which is really a little home, plus the clustering of groups of people together has helped that... I think the account groups are working more closely better together.
>
> Account Director, LA

> I feel more a part of the account team. My other jobs, I wasn't even involved with the account team. It was like, 'Here are the commercials, here's what's going to run and I'd go off and do my thing. I think we interact more.
>
> Broadcast Traffic, LA

> The virtual office does help some of the problems of media being segregated from the group. Media has traditionally suffered from not being a part of the group and virtual [office] helps break that down because media is more comfortable being involved on a day to day basis. The team concept of virtual works. Everyone gets more absorbed into the team than they do in more traditional agencies.
>
> Media Director, LA

An interesting perspective came from an Account Planner who felt closer to and more a part of the account team than his discipline but was concerned that it may be problematic.

> Yes, I feel more a part of the team than I feel I am an Account Planner. Maybe it's just the day you're talking to me but I don't think that's a positive. It's a double-edged sword. It's a positive but what happens is sometimes there's a blurring of roles...but I think it is good to have a clearly defined role...But I don't think it's made a drastic difference. There's just more interrelating.

Although occurring more at LA than NYC, account teams sometimes met in the evening for a social activity geared for team bonding:

> They're planning a night out to go bowling with our team and the other team [under our director]. But the team bonds just because they sit near each other every day.
>
> Account Executive, LA

Team Collocation in the Conventional Office

Although there were no project rooms to give account teams a sense of identity in the Toronto office, a similar sense of identity was achieved, to some degree, by grouping account team cubicles.

> The loyalty to the team is difficult for some people like the media people who are on multiple accounts. I find everyone on my account has more of a team focus than a discipline focus...
>
> Account Director, Toronto

Intradisciplinary Communication

Intradisciplinary communication helps individuals stay abreast of the latest developments in their field (Becker, 1990). Thus, even in cross-disciplinary team situations, it is important for individuals to maintain contact with others within their discipline. Collocation of disciplines is one way to encourage this interaction. We were interested in the extent to which the virtual offices affected disciplinary collocation and intradisciplinary interaction.

The same main factors influenced this communication as influenced cross-disciplinary communication: office size and collocation. At the smaller offices, employees encountered coworkers more often and were more likely to know them, which facilitated sharing.

Extent of Collocation

The collocation of disciplines, mainly at the Conventional office but to some extent at the Modified Virtual office, facilitated communication within those disciplines.

One of the primary differences between the NYC and LA offices regarded the collocation of creative disciplines and support functions (traffic and production) in LA. In NYC, these departments often created "informal" department areas by congregating in group spaces, such as the Clubhouse or small project rooms. In LA, Creatives maintained intradisciplinary communication by collocating in one area, while in NYC they made a point of periodically meeting together as a group. As an Account Planner in NYC said, "The Creative department does [disciplinary interaction]. They took off on Friday and had a Creative Day, and they do that often." The justifications for group ownership of space in LA included:

- Higher incidence of multiple account assignments across SBUs.
- Greater storage requirements.

> We have our own desks and dedicated computers...It's the nature of the job. I don't work anywhere else in the office.
>
> Broadcast Traffic, LA

- Disciplinary identity is stronger than account team identity.

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According to an Account Executive,

> There's not a lot of communication across accounts [in Account Services]...Creatives are more likely to interact across accounts. They sit next to each other and might share and bounce ideas off one another even across different accounts.

Locating disciplines in the same area, however, did not guarantee communication occurred. Although the Creatives sat together, they did not have assigned workstations with display areas nearby, making it difficult to check on others' progress.

> It was a bit better in the old environment. Before when we had offices, people would tack up stuff on the walls so you could see it. Here you don't tack your ads up on the walls because you won't have that office next week...There's less interaction. ...You used to see their work and it would spark discussion.
>
> Creative, LA

Not being collocated by discipline limited intradisciplinary communication particularly among those groups that extensively used the project rooms (Account Services and Account Planners). Account management (Account Service and Account Planning) must have a deep understanding of the industry to project and strategize product positioning in the market. They have to stay abreast of what their particular industry is doing. These people interacted within accounts and SBUs, but not across SBUs because each SBU was a completely different industry.

> Socially, we'll sit over a cigarette and talk about different accounts, but because we're not on the same team, I don't have much interaction with [other people in Account Planning].
>
> Account Planner, NYC

One newer Account Executive explained that she was much more likely to ask questions of the Assistant Account Executive on her team (who has been with the agency a long time) than ask a person at her own level on a different account. Going to someone outside her account team "just doesn't happen."

Other disciplines such as Media interacted more often. They seemed to feel a greater need for it. Unlike Account Services and Account Planning, which tended to be more industry-driven, Media was described as more consumer-driven, and thus their work was more "generic". Media people across accounts often sat together in the Clubhouse. Junior media people often sought out more experienced people on different accounts to learn how to reach a particular audience.

> You may have someone who deals with a different account that you don't...an account that doesn't do a lot of TV while another has done primarily spot TV, spot

> radio, not a lot of print...So someone who works on that may not be as deft at putting something into the system for spot TV than someone else may be.
>
> Media Planning, NYC

> We're not isolated from one another. We're focused towards our accounts and towards our clients. But...there's a whole bunch of communication amongst ourselves...It's very informal. New media ideas are contagious, so we try to keep abreast of what's going on.
>
> Media Director, NYC

Communication Across SBUs

Research has found that a team's pattern of external behavior can be as important as it's internal communications in influencing its success (Allen, 1977; Ancona & Caldwell, 1992a; Parker, 1994; Shaw, 1978). Not only does contact outside one's team facilitate greater understanding of organizational activities, but the more employees known, the broader the knowledge pool from which to draw.

Differences across the three sites appeared to relate more to staff and office size, than other aspects of the workscape.

Office Size

The NYC and Toronto offices had fewer employees and occupied considerably less square footage than the LA office. As a result, employees saw one another more often and had a better sense of employee identity. An Account Director in Toronto said that he "could name about ninety percent of the people. I don't know junior people who have just started over the last couple months."

Number of Floors

In addition to the already small size of the NYC office, everyone was consolidated from three floors to one. A frequent comment was "I know more people now" or "I talk to more people now." One Account Executive, in explaining why he talked to more people now than in the old environment, commented:

> I do talk to people in the [Auto] group, which I would never, ever do before [in the old environment]...Now they are HERE; they're walking around, eating lunch... [The environment] is more conducive to meeting other people than other environments.

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> It used to be that we were spread out over three floors. I didn't even know who was on the other accounts. Then we moved in here, and there were all these new faces, who had been working for the agency all along...It's [the virtual office] so much better as far as interacting with other people in other [SBUs]. I think it's truly an effect of the environment.

To some extent, the opposite occurred at LA. For some, their previous office had been a much-loved warehouse space (across the street from the current office), with one big, open, floor. There was nearly unanimous agreement among this group that individuals interacted with more people from different SBUs. The segmentation into three floors resulted in limited interaction among the teams on different floors. (It should be noted, however, that for several years prior to the entirety of Chiat/Day LA moving into the existing office, the majority of the employees were already working in that office).

> There is no interaction among floors...I know people from other accounts only if they have been in the project room next door to us. But if they're on a different account or are new, you don't know them.
>
> Account Executive, LA

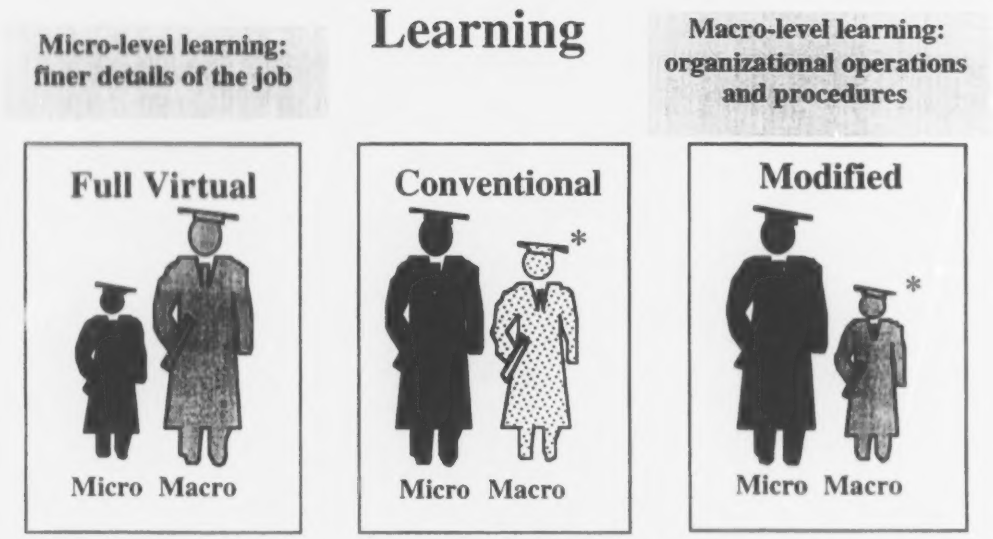
> Across accounts [communication] is only by who shares the project team with you or the group in the room next door. So you kind of hear things going on. We don't see other accounts if they're on another floor...not only do I not know what they're doing, I don't know anyone on the accounts...I guess in the warehouse, because it was all on the same floor, even though it was really big, you tended to see people, you just knew people. ...Because of the layout now, there are just places in the building that I never go.
>
> Account Supervisor, LA

As an individual from Broadcast Traffic explained, "Within my area there is a lot of interaction but within the agency, no. I don't even see most of the people so it's hard to meet people."

Assigned Spaces

At Toronto and as was the case previously at the virtual offices, each employee had an assigned cubicle with an attached nameplate. This made it easier to learn names and faces. Personalization of the cubicles increased employee understanding of the cubicle "owner" and position performed.

> I think one of the best things about the way the Toronto office is set up, you do interact with people quite a bit more than if you were walking down a hall with closed offices or even open-offices with doors. ...you know where people are at with projects and you get an appreciation for what people do whether they're in or outside of your core team.
>
> Account Supervisor, Toronto


Learning
Micro-level learning: finer details of the job
Macro-level learning: organizational operations and procedures
Full Virtual
Micro Macro
Conventional
*
Micro Macro
Modified
*
Micro Macro

** These differences primarily due to size of office*

Figure 22: Extent to which macro and micro-level learning were supported at each office.

Across the offices differences in learning had much to do with office size and use of project rooms.

Office Size

In the smaller environments, employees felt that they naturally overheard office conversations regularly and easily gained main elements of the advertising process. Meetings took place where they were working and they overheard business points that they would not have heard in enclosed offices. An Account Executive felt that he didn't so much attend more meetings, but was exposed to more, "I may find myself in a room with [top-level executives] talking about something. I'm not going to throw my two cents in, but it's a great way for me to learn something."

A person from Media Planning had similar experiences:

> I can go sit in the back of a room for a meeting where Jay and Ira are talking about something and they are showing the creative on the wall and talking about strategy. It would have been more intrusive in the old environment. Here it's more accepted... 'Well, this guy wants to learn a little something.'

Learning, in Media—where communication with others in the discipline was important—was a problem at the larger LA office. There was no Media area where they could go with quick questions for supervisors or another Media employee. Media people in NYC, on the other hand, felt that their office worked quite well for this type of learning. In NYC, employees more easily

Special Programs

The Toronto office designed specific activities promoting interaction across the agency. Each Friday afternoon, a social gathering was scheduled in the kitchen and lounge area. An employee (usually the newest) picked a theme for the gathering and refreshments. According to the Human Resources manager, about one-half the employees usually participated in the gathering and nearly three-quarters will stop in briefly.

In addition, the Toronto office held monthly meetings similar to the "tree meetings" at the former LA office. Recent ads were shown, new employees introduced, Chiat/Day employee anniversaries recognized, office and agency activities updated, and the move to 'virtual' status discussed.

Many LA employees lamented the loss of the previous warehouse space and the "tree meetings," where senior management, in a treed atrium, spoke regularly to the entire staff about current agency activities.

> There was interaction across the agency before and there is none now. ...very little sense of what is going on in the agency... I feel very connected to my team, I feel like they're part of my family. But there's very little across the office. ... that was one of the things I loved about the warehouse office. It was such an incredibly great space and we were only on one floor...That was just an incredible feeling...
>
> Account Planner, LA

> We're probably more critical because we used to have the ultimate situation at the warehouse. It was a relaxed environment and we were all on one floor so we knew everyone. I probably feel a little less in touch with the agency than I was. They used to have "tree meetings" at the agency and I don't know why but we don't have those anymore. It was a time when the office president would tell us all the things that were going on and introduce new hires.
>
> Account Supervisor, LA

Learning

Patterns of informal communication within organizations may be key to individuals learning their jobs and how to function within the office culture (Brown & Duguid, 1991; Lave & Wenger, 1990). We were interested in how learning occurred at both a broad organizational level and the level of individual job functions at each office.

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found and worked with people outside their account teams because of the small size and single floor. In LA, with three floors and twice the employees, this type of contact was reduced.

Number of Floors

Employees also felt that the one floor office gave them greater access to more experienced coworkers than the previous environment:

> Someone who has been doing this for twenty years...knows things about stations, about small towns in Upstate New York, that I bet you buyers don't know....You can ask [senior guys] and ...and tell you about a town, tell you about the people in the town and what they do....Now I can just ask because they are right there...
>
> Media Planner, NYC

Asked whether accessibility increased job difficulty, a group management supervisor explained:

> Yes, I'm more accessible. Yes, it's sometimes more difficult to get work done because of that, but there are more options in the office. I can go in a side room, I can go home.

Use of Project Rooms

The project room environment, with everyone working together, was ideal for giving junior employees a better understanding of team activity and how to handle various situations.

> I think this environment, along with the project rooms, is a really good thing. Someone who is junior can be in the project room and overhear almost all of my phone conversations with the client which I think is a good thing. It's a good way to hear information to know what's going on. It's a great way to learn because it triggers questions that you normally wouldn't think of.
>
> Account Supervisor, LA

> There's more interaction with the people above me. They used to be in a separate cubicle but now they're in the same room with me so even on a personal level, I know them better. ...It helps, overhearing them on the phone, for learning and knowing what's going on.
>
> Account Executive, LA

With the ease of questioning senior people came the problem (from the Account Director's perspective) of not solving issues alone. An Account Director explained that his team consults him much more than they used to do, "partly because I am so accessible. Sometimes I think I'm too accessible and they come to me with things that they should be working out on their own."

This "learning by observation" was primarily attributed to the project rooms. Toronto's Conventional office, by collocating by account team, also supported this kind of learning.

> When you're physically with the members of your core team, you're constantly talking about the client, certain things are overheard and I think the people who are in the group have a better overall understanding of what's happening on the account.
>
> Account Supervisor, Toronto

There were concerns in the NYC office that the "finer elements" of learning, such as how to handle a specific situation or how to communicate with people, were lost due to a more limited use of the project rooms. Users felt they would normally learn these traits from everyday observation of coworkers, but in the Full Virtual office they did not work together as often in the project room and thus, spent too little time next to the "right" people.

> People are more on their own in this environment...They may not have me to sit by them all the time, to watch me or to observe me as I do my job...I feel like there is less [of this type of learning] since coming to the virtual office...
>
> Media Director, NYC

> In the old environment, you would learn a lot from hearing telephone conversations or whatever. Here, when you're getting bogged down with 'bigger learning,' you forget about that learning....If you're not sitting next to the person when they are doing it or you're having your own conversation, you can't really learn that way. A lot of that osmosis kind of thing is gone...But that is replaced with other learning. ... You get exposed to more things about the organization.
>
> Media Planner, NYC

Use of Technology

In the Full Virtual environment, since employees were conscientious about placing all project information on the server, the computer was used by new hires to "get up to speed." In addition to attending the weekly status meetings to learn about current projects, one new hire explored the server to learn about other employees' activities and to find more information on meeting discussion topics. He retraced several months of account history, a practice he believed was not possible elsewhere. Because of the different office systems, he felt he was educated about the accounts faster than he would have been in a different office.

Work Process

The goal of new work practices often includes the desire to move a better product out the door faster and cheaper. Space savings which may result from new workplace designs can reduce overhead costs, but it is less clear that new work strategies will necessarily hasten the work process or improve the end product. We examined the effect of the virtual office on the work process.

Employees of the virtual offices felt that although projects may not be completed faster overall in the new environment, some processes were enhanced. As one user put it, "It still takes nine months to have a baby!" One Media person thought he could complete work much better in the virtual environment because of greater freedom and responsibility. "You're given a lot more tools to utilize in a different way. You can meet with people to discuss the research, rather than having to do it all on your own."

The new workplace system did contribute to the ability to work "smarter."

> The environment helps you understand the business that you work on better because of the interaction you get, which means I can work better. It's probably not any faster.
>
> Media Planner, NYC

> [Not having my own space] makes me want to delegate more, and work less. My job is delegating, but I'm a very hands-on type of person. This environment makes me want to do more delegating, less hands-on...I'm not necessarily working better, but maybe working smarter.
>
> Media Director, NYC

On the other hand, there were also drawbacks to the new workplace system. Several individuals missed the ease of pulling a paper document out of a file.

> If a client calls me up and says, 'I have a question about an estimate or a copy,' in the old office, I could get that copy faster by going in the drawer and pulling out the file...than I could on the computer, going into grand central, typing in my password, opening up the account management file, opening up the file that says copy, opening up the name of the script...There are some things that are great about the technology, but there are some basic things... that I could do faster in the old office.
>
> Account Executive, NYC

> You have to find your way of working. In the beginning I was really unorganized and I thought it was not a good way to work. I think for business purposes, the

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> paper trail really assists you in covering your [self] and without that you tend to look less prepared in front of the client. A file of a certain event really helps and I know you can do that on the computer but when you're on the phone with a client sometimes you're panicked and you need to spread everything in front of you and with the computer you can't do that ...
>
> Account Executive, LA

Other work process frustrations had to do with feelings of low productivity due to disruptions:

> There are a lot of distractions. There were distractions in the old office but what was nice about it was you had your haven... your office and for the most part, people left you alone....There was a differentiation between now I'm available and now I'm not. And I don't think there is a distinction now or it's very hard to tell.
>
> Account Director, LA

The Influence of Greater Use of the Project Room

LA employees felt that most daily decisions could be made faster and easier, primarily as a result of project room use and interactions. Account personnel worked together in the room and others knew where to find them.

> Decisions are made faster. You can see when someone has a minute to talk with you. You don't go down the hall, see that the person is on the phone and then have to come back later. ... In that way, it's just much more efficient.
>
> Account Executive, LA

> I think that decisions get made faster because you have this core group now and everyone's there... you walk out of these meetings and know that the decision is done. We'll show this and this, then it's a question of coordinating with the client.
>
> Creative, LA

Enhanced communication within the account team resulted in better systems and decision-making.

> I think the role of the project room helps to focus people's attention on certain things. ...The impact is on the dissemination of information and the communication of certain information but I don't think it's necessarily changing the timing. It just might be making us better at communicating because we have the space and opportunity to think more graphically.
>
> Account Director, LA

> When my supervisor and I work in the project [room] together we hear each other on the phone and it facilitates communication and eliminates duplication of effort.
>
> Account Executive, LA

The Conventional Office

Because of working together in their collocated cubicles, most employees in the Toronto office thought that the work process was fluid and well coordinated.

However, an Account Director was concerned about entire teams sitting and working together, "You don't want everyone sitting together and starting to think alike, whether it's Account Services or Media or a Planner. It kind of removes some of the passion from the business."

> The risk of having people sit together is you end up having people working in a system that you physically create than in one that reflects an attitude of those who work together. ...I thought sitting together did weaken the process. You want people to bring their fresh perspectives, not a homogenized thought group...
>
> Account Director, Toronto

Employee Empowerment and Decision Latitude

Employee empowerment is widely believed to enhance anything from employee motivation and productivity (Pfeiffer & Dunlap, 1990) to creativity and bottom-line orientation (Kirwan, 1995). We looked at whether Chiat/Day's team architecture and/or its virtual offices affected employee empowerment and decision latitude.

Many employees mentioned that having power over their work schedule and workstyle was one of the greatest advantages of the virtual office. Even if they did not take advantage of working remotely, or worked the same schedule as in the previous environment, the fact that they had the power to choose made them feel in control. The organization trusted and respected them.

> I have so much freedom at this place. Especially for being young. They just say 'Here's the work. We expect you to be adult about doing it and responsible. We need it done in this time. Go do it—however you want to get it done. I don't care where you do it or where you get your research; as long as you do good work.'
>
> Media Planner, NYC

Employees felt that they had more responsibility: for tracking activities, for using the tools to update knowledge, for deciding work place or time. As one Account Executive put it,

> I've found that you either sink or swim when you're in this kind of environment. ... like the kid who goes away to college and leaves home for the first time and you have to handle the responsibility and you know how to balance play and work or you play too much and you flunk. That's totally how it feels.

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Influence of Greater Use of the Project Room

Full Virtual office employees felt that they had greater decision latitude than did Modified Virtual employees. According to one Group Management Supervisor in NYC:

> There are not the same types of checks and balances that they had in the old system. It's a less structured environment, ...people are forced to make more decisions on their own at times.

An element of risk, which many users had not previously experienced, came with the wider decision latitude.

> The chance to make mistakes is increased here. But that simply means you have to be more thorough. Sometimes you have to make decisions on your own, without being able to talk to your supervisor. There's a little more risk involved.
>
> Account Executive, NYC

In LA, decision-making did not become a more autonomous activity. In fact, particularly within the project room, employees probably made fewer decisions than before. Because there were always team members around, employees discussed issues rather than solving them alone.

> I've always been accessible but maybe more so now. The team talks a lot more to me.... Whereas before they seemed to feel more of an obligation to figure it out because you were sort of in your own little world when you were at your own desk so you think about what should I do about this before going to talk to the boss. While in a group environment, I think there's more of a tendency to say, 'Okay this happened, now what are we going to do?'
>
> Account Director, LA

The Conventional Office

Even in the assigned cubicle office strategy, employees believed that more self-discipline was required to work within Chiat/Day's core team concept than at a more traditional agency.

> It seems like it has a lack of structure but really it's a more disciplined way to work...I think there are two kinds of people, those who say, 'What should I do' and those who instinctively say, 'Why should I do it?' This place is for those who say, 'Why should I do it?' The environment breeds a higher degree of street smarts.
>
> Account Director, Toronto

Social Interactions

Social networks within the organization are important to support such far-ranging functions as helping employees cope with organizational change (Callan, 1993) and conveying organizational expectations and job-related "tricks of the trade" through organizations' communities of practice (Brown & Duguid, 1991). We examined the effect the virtual offices had on social interactions among coworkers.

In LA's Modified Virtual office, account teams' use of the project room brought the teams closer together and resulted in increased team socializing. Users described the project room as a dynamic space in which they enjoyed working.

> When you had your own cube and no one's talking to you, I started to stare at my own computer and get really sleepy and begin to wonder if anyone would notice if I took a nap. In the project room there are things going on to keep you stimulated...There is more socializing within the account group. ...You overhear things and join in conversations.
>
> Account Executive, LA

However, employees at both virtual offices felt that their new office was less social overall than the old (despite those in the Full Virtual office feeling they had more contact outside their own account teams). As a Creative at NYC explained,

> You definitely don't talk to as many people because there are no nameplates or anything. I feel like I definitely don't know as many people as I did before....To meet people is an effort...Unless you have a need to meet people, it's like you're a five-year-old on a playground, 'Hi, my name's [XXX], what's yours?'

In LA employees felt that they knew each other and had interacted more in the previous office.

> I know I talked to them over there but now I don't. It's very segregated here by project room and by client which makes for less overall communication. ...It used to be that everyone knew everyone but it's not that social anymore. I saw and interacted with them more in the old environment.
>
> Print Traffic, LA

They attributed some of the difference to the virtual environment. Flexible work hours contributed to the lack of social activities. An Account Planner at NYC said, "People come and go at different times, so you can't really go out at four, because people are sometimes gone by four!"

Others attributed the lack of social interaction to the workplace system. People were more work focused in the virtual environment, and were less conscious of making time to socialize.

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> You don't have—and you would think you would—as much personal contact. Someone doesn't stop by your desk to just shoot the breeze for two minutes. It doesn't really happen... You expect people to just shoot off what they need and then leave.
>
> Media Planner, NYC

Still others felt that the problem had to do with the nonterritorial nature of the office.

> For me, when we were in the warehouse, the Creative department had all their individual desks and you knew who the fun people were. When you wanted a respite from what you were doing, you would go hang with them and talk about things that had nothing to do with work.
>
> Account Director, LA

An Account Planner was very concerned about the lack of social activity, explaining in depth:

> I think people have become furniture...People are sitting at a computer, and I don't see *them*, I just see a person sitting at a computer...I'll walk by someone and not say hello a million times because they're just there...You just don't see their faces. If you were walking past a cube, you might pop in and just say "Hi."...You don't really do that here. If you pull up a chair, you're taking someone's chair away. So you stop, you say what you have to say, and you go on. I think one of the problems is the Clubhouse, which is supposed to be a social area, people come in with their computers and they sit down and they're doing work. it's not really conducive to socializing.
>
> Everyone kind of goes about their business, and...there's no music playing, there's no place that we can really 'touch' the walls. There's no place for the Creatives to be creative. That's the life...the personality of the agency. I miss that....There's no "free zone."

The Influence of Office Location

The new NYC office is located in the financial district, a much more conservative area of the city. Users complained that the area was not conducive to 'going out" after work. Employees also mentioned that, either because of the location or the area culture, they do not participate in as many social activities as they did before the virtual office was established. These social activities, like going for a drink after work, helped employees get acquainted.

> We used to go out every Friday night, and there would always be someplace to go. There's no place to go here. ...We just don't get to know people as well [as in the previous office]. Maybe there's not as many functions that are organized so we get to know people.
>
> Creative, NYC

> I don't like the neighborhood here. I mean, it's horrible. It really is. There's just no where to go... Lunch is terrible...It's just not a fun place. And nighttime, it's scary. The place shuts down at like seven.
>
> Media Planner, NYC

Office Size and Number of Floors

As discussed previously as a reason for little interaction across SBUs at LA, the large size of the office and the segmentation onto multiple floors made it difficult to know and interact with others.

> I was talking to another newer person the other day and it was funny because it's that rare day when you're in the elevator coming up and you actually know someone. I don't think it's so much the virtual thing, I think it's just the size of this place, it's huge.
>
> Account Supervisor, LA

The Toronto employees reported a high degree of social interaction in the office. Because of the small office size, employees knew one another and therefore socializing came quite naturally.

Formal Programs

The Toronto office used several regular social functions to promote interaction. For instance, the Friday "tart cart" mentioned earlier (see "Communication Across SBUs") provided an opportunity for everyone within the office to socialize together.

A separate program pairing new employees with tenured employees helped new hires get acquainted with the staff and agency. Called the "buddy system," the long-timer showed the new hire the office and introduced other employees. Chiat/Day paid for lunch out for the buddies. The new employee's buddy then became a continuing resource for questions and general information.

Client Reactions

Clients of offices establishing workplace system changes can be expected to be wary. They have obvious concerns about how the office will perform operational functions and meet their needs. We asked agency management about client reactions and the issues the agency considered when implementing the new strategy.

The general consensus at both virtual offices was that clients were essentially unaffected by the change to the virtual environment. Many clients expressed concern when the change was

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originally announced, but the majority of concerns (according to users) were unfounded after initial start-up problems were corrected:

> I think [the clients] are all pretty comfortable with it. At first they were all a little apprehensive about 'Am I going to be able to reach you?' or, 'Am I going to get lost in this void of voicemail and never find you again?' And that didn't happen.
>
> Media Planner, NYC

> I think every client had a high degree of skepticism when we announced the project. They continue to say they don't know how we function in this environment. ...They wouldn't admit it to their fellow workers but I think secretly they say to themselves, 'Hmm, I'd kind of like to see what this would be like.'
>
> I don't think they feel less connected to the agency in any way. We've been real specific as we launched this thing in asking them to help us evaluate this as well. '...We'll try and recognize internal issues, but you need to be the external person who'll say, 'Well, here's an issue.'' One client said they had a problem with reaching us but really, they couldn't reach us any better in the old environment. They got used to it...
>
> Account Director, LA

The only real client complaints concerned, "being able to get in touch with people on the telephone and the noise."

> During phone conversations I've had a lot of, 'Where the hell are you?' 'Are you at a party?' 'What's going on there?' ...That happens a lot. Now if a client calls, I'll usually go somewhere and sit down where I think I'll have some privacy ...
>
> Account Director, LA

Many clients seemed to enjoy the physical surroundings and the team/project rooms:

> When [one client] comes in, it's their place. Their stuff is on the walls...their business plan or their creative is on the wall...They can make phone calls, conduct business for the day. [One] actually held a meeting... in the conference room.
>
> Media Planner, NYC

One "hazard" of these rooms that occurred at the LA office was clients dropping in to their project room unannounced. Although most client meetings were held in more formal conference rooms, clients liked their account's project room. Some would even work there before or after meetings. Probably because of heavy account team use, the project rooms became cluttered. For this reason, they are now designated as work spaces and client meetings are held elsewhere.

Key Findings

Design

Size and Layout

- The greater number of employees (approximately 350) and larger office size of the Modified Virtual (LA) office, in combination with multiple floors, served to limit interaction outside of teams and particularly outside strategic business units (SBUs). Most individuals worked in or around their project room and did not move around the office or onto different floors. As a result, employees felt they knew less of their coworkers, socialized less, and knew less of what was going on throughout the office.

- The Full Virtual (NYC) and Conventional (Toronto) offices, both of which had smaller staff populations (approximately 150) and were on a single floor, made interaction with coworkers from various teams easier. Employees became involved in conversations or meetings with people outside their own teams, including at times, the Office President and/or the Creative Director. In this way they got a better feel for what was going on across the agency and for how the entire project process worked.

Project Rooms

- Project rooms had a significant effect on how teams functioned. In the new "virtual" office arrangements core team members (Account Services, Account Planners, and to a lesser extent Media Planners and "Creatives") were assigned to a common project room. Even more so than in the traditional office, where team members' cubicles were grouped, employees working out of the project rooms felt that they had much better communication, and that this communication resulted in better coordination and team spirit among all disciplines.

- Having a common project room in which current project information was posted on the walls made it easier for Creatives, and those team members in a support role, to communicate with each other and to keep abreast of project developments.

- A common room helped reduce hierarchical interaction patterns. Team members at different organizational levels and ranks felt that they had greater access to one another than in their previous more conventional environment. Instead of the Group Account Director sitting in a cubicle next to a Senior Planner, he/she worked along with all the junior team members in the project room. Working in visual proximity created increased opportunities for young staff to "learn by observation" from older, more experienced staff.

- In comparison to employees in the Modified Virtual office, Full Virtual employees spent less time working together in their project room. They used it more for solitary work than as the primary work location for core team members. One consequence reported was that of not learning as much about their jobs as compared with staff in the Modified Virtual office who used the project room more as a team.

Clubhouse

- The Clubhouse (activity hubs fitted out with cafeteria-like furniture and food and beverages) were valued spaces, used both for working and informal socializing.

- At New York's Full Virtual office, employees felt that the Clubhouse was less social than it could or should have been, contributing to a sense that the office was less social than it used to be. Its central location and heavy use as a work location by key support staff contributed to this (see below).

- In the Full Virtual office, the Clubhouse's central location, through which almost everyone walked upon coming into the office, made it an ideal place to see and contact others. For this reason, employees who needed to coordinate people and activities, like Group Account Directors responsible for multiple and dispersed project rooms, often chose to work in this space.

Dedicated Spaces

- LA's virtual office was modified by the provision of dedicated workspaces for the support disciplines and Creatives. This collocation of disciplines enhanced communication and collaboration.

- The dedicated spaces reduced the need to physically search the entire office when needing to meet with someone from one of the collocated disciplines. (Wireless phones, which could have been used to identify where someone was presently located, were not used regularly for this purpose.)

- The collocation also enhanced communication and learning from others within one's own discipline.

Provision of Spaces to Concentrate

- Although the virtual offices had small enclosed (i.e., private) rooms which could be used on a "first come, first served" basis by individuals or small groups of people, employees felt that there was no place within the office that they could really "get away" and think. This was especially true of Creatives. Even in the Modified Virtual office, where the Creatives had their own dedicated open plan area, this area was considered too loud and open to interruption.

- Each office also had a library which could be used for individual quiet work. However, because the space was neither reserved for silent activities (like reading) typical in a conventional library, nor intended only for lively brainstorming sessions and meetings, it served neither purpose particularly well.

Technology

- The available technology, including laptop computers with high speed modems, was not heavily exploited for remote work or collaboration. It was used primarily for keeping in touch with one another and for limiting the need for paper copies of everything.

- The wireless telephone system was used as a resource for finding and/or leaving messages for other's within the office (but it did not eliminate people searching for others by walking around the office; in part, because individuals did not reliably carry them as they moved around the office).

- The client-server computer environment enabled individuals to file everything related to the account in a central location, accessible by all. This appeared to be more heavily relied upon in the Full Virtual environment.

- Laptop computers connected to the central server and an e-mail system allowed those who were traveling to remain in touch with their team.

Informal Work Practices

- One of the reasons even the small "quiet" and meeting rooms were not viewed as providing adequate opportunities for concentration and creative concept development was an informal norm that made it acceptable to interrupt anyone working in the office. As a result, people went home or to other locations when they needed to concentrate.

- In the Full Virtual office there appeared to be more "peer policing" than in the Modified Virtual office. In the former, nesters (people who used the same place every day and left their personal materials in it) were asked to find a new place to work and their belongings were more likely to be moved out of the way when left for long periods.

- There was a greater reliance in the Modified Virtual office on informal spontaneous interaction (rather than formal meetings) for project coordination. One consequence was that individuals not physically present when a policy was made or modified, or certain information shared, felt "left out of the loop".

Implications

The Findings section described both benefits and drawbacks to Chiat/Day's virtual office, whether it was "full virtual" or a modified version. Further, we have seen that team functioning (i.e., team collaboration, communication, and learning) was influenced not only by whether or not the office was virtual, but by a variety of other aspects, including the size, layout and number of office floors, technology use, and informal norms about what constitutes "civilized" and "uncivilized" behavior in using space.

As the size and number of office floors was reduced, for example, the overall impact of having (or not having) assigned spaces declined. In the large three-floor LA office, for example, having unassigned spaces increased the use-value of the project rooms. However, even the project rooms affected team members in both positive and negative ways. For example, project room use by groups within the same strategic business unit (SBU) enhanced communication and cohesiveness among cross-functional team members, but had the effect of isolating members of different SBUs. For organizations whose survival depends on product and service innovation, this is not a trivial issue. Thomas Allen's (1977) summary of years of research on factors associated with successful innovation in engineering development teams showed that innovative product development solutions increased as communication with people *outside* the immediate project team increased.

The fact that project rooms may enhance communication within one set of employees while reducing it among another underscores the fact that the consequences of any intervention are multifaceted, and often unpredictable. One of the most potent implications of this is that organizations must be very clear about which potential outcomes they believe contribute most to their overall effectiveness (e.g., intradisciplinary versus cross-functional communication). This is not to say workplace strategies should not be sought that operate successfully on many levels; only that if one has to bet on an outcome, one should bet on one that will make the strongest contribution to long-term effectiveness.

Creative Support

Good spaces are insufficient by themselves. Even though, at Chiat/Day, essentially private rooms were available for individual concentration and small group brainstorming, the common view was that there were no real places for these activities in the office. As a result, the "Creatives," those most responsible for generating innovative advertising ideas, often left the office to do serious advertising concept development. This is not necessarily bad (see below). But it suggests how much informal social norms about what constitutes "civilized" or "barbaric" behavior can influence work patterns. At Chiat/Day it was considered "civilized" to interrupt anyone in the office. Thus, a room with a door was no guarantee of privacy. Instituting formal and informal policies that made interruption *in some locations* within the office off limits might have rendered the spaces intended for these activities more useful. As it was, the overall sense was that the office was designed to support and value constant planned and unplanned group interaction. The fact that at times creativity takes concentration and isolation seemed to have been lost, if not among those who planned and designed the offices, then among those who used it daily.

At the same time, just as the same workplace strategy is unlikely to be appropriate for every office function, it may not be realistic to expect the office to provide every conceivable work setting. In fact, at Chiat/Day, it did not. Employees who found the office too noisy or filled with interruptions went home or rented a hotel room for a day or two. This occurred without much consideration by management as to whether using spaces outside the office might be a deliberate policy, one that influenced what the office itself provided.

It may make sense, for example, to focus on supporting administrative and coordination activities in the office, and have those employees who need quiet or no interruptions or who want to concentrate on concept development, work offsite. Specialized spaces for concept development or intensive work could be provided on demand by outside vendors, thereby reducing the amount of overall space required in the office, and enabling the organization to pay for specialized space it needs occasionally. The Dutch Federal Building Agency, located in Den Haag has recently done just this. They have formed a joint venture with a hotel chain in which the hotel will build a facility with specialized team rooms and services. Federal employees will be able to rent these spaces as needed without any prior approval or any cash outlays or expense on their part. Likewise, Digital Equipment Corporation's telecenter on the outskirts of Newmarket, not far from Cambridge in England, has eliminated virtually all informal meeting space in its own facility but then arranged for its employees (most of whom are mobile workers) to meet in local hotels, a supermarket and at a business partner's facility for solitary or group work. The Coleman Center in midtown Manhattan offers meeting space from a few hours to a few days. It is used by local firms who appreciate being able to hold a meeting in which participants are not interrupted by staff bringing in phone messages. It is unclear at this point whether outsourcing some of this kind of meeting space would result in overall space savings or be available in a timely enough fashion. It appears, however, that such an approach would simply make more deliberate practices that already exist.

Socialization

Because informal socializing is an important contributor to the development of informal "communities of practice" (Brown & Duguid, 1991), the fact that employees at both virtual offices felt that there was less in-office socializing than there had been prior to the virtual office implementation is a concern. Ironically, this seemed to have occurred because social spaces like the "Clubhouse" worked very well as informal work areas. The result was that there were really no places within the building to go purely to relax. Making some areas within multifaceted facilities off limits for working may make sense! The problem, of course, is that then those seen in these settings are likely to be labeled as shirkers. The answer may lie not in outlawing work in an area, but in creating a comfortable, pleasant quiet zone for work or relaxation that has a calm restorative feel, more like a park than an amusement center.

Some assigned areas might also make sense, even if the individual workplaces within them are unassigned. People do not like feeling anonymous; most want to feel part of some relatively small group. When the whole office is nonterritorial and fairly large, as it was at Chiat/Day LA, it is difficult to get to know people, since the same people are rarely sitting in the same places. It is easier to get to know people who, while sitting in a different place, sit within a common area. It is a distinction one company has made between "free-address" offices, in which the employee could sit anywhere within an office building; and "group address" offices where the individual sits with her own group in a common area, but without assigned desks or offices in that area. Group address areas provide opportunities for more focused social contact without reducing it to communication with only the few people who sit closest to you.

For new employees, the virtual office can be especially difficult to navigate socially. While the employee may sit next to more people, there is no natural mechanism (except a gregarious personality) to introduce people to each other. At Chiat/Day the longer tenured employees tended to lose track of others and did not meet as many new employees. With fewer people knowing one another, there was less socializing. The importance of this, again, lies not just in the sense of social isolation and alienation, but in the loss of opportunities to discuss the myriad job details which never appear in any training manual or program, but which are critical to effective everyday functioning.

So far, in research we and others have done, no simple answer to the feelings of social disconnection mobile and flexible workers experience has emerged. While holding more whole group meetings and having more parties are obvious alternatives, they tend not to occur precisely because they take planning and forethought. The answer may lie more in the gradual shifting of social norms; making it uncivilized not to introduce one's self, for example. Making better use of electronic technology is another. An electronic screen or kiosk in the center of the building might project faces and names and something about new hires. Screen savers might have different employees' pictures and names on them, appearing randomly, so that people could associate names with faces and jobs performed. There will be no single solution, but it is an area that must be addressed if flexible work practices are to survive over the long term.

It is also worth considering the possibility that time itself, may be part of the solution. Several months after our data collection was completed and almost two years after employees moved into LA's virtual office, Laurie Coots, Senior Vice President, Director of Administration, noted that:

> The bonding within the teams has been amazing. Whereas before Account Management people were considered 'mere mortals' and Creatives were not likely to hang with them, now we find the team much more cohesive and strong as a unit. They function more like a unit, feeling less exploited by each other and more like they are 'in this together.' These units are definitely raising the quality of the creative product (Agency of the Year Award) although it does create some distance between other units. So in the past we had people who were more 'generically' mingling but not meaningfully bonding and now we have heavy, family-like, meaningful intra-team bonding and fewer inter-team generic exchanges.

Coots also noted:

> People tend to respond at first that the office is less social, but when you probe about whether that is because it is 'harder to socialize,' the bottom-line is that given a choice about how they would spend their time, socializing at work with people at work is not as high as some other choices, like being with family, running errands, or being someplace inspirational.

If Coots is right, time may be a critical factor. Over time in the new environment, the nature of socialization and where it takes place may evolve.

Adaptations

Why They Occur

A truly virtual office in which employees randomly come and go and work in different places each time they use the office may be extremely difficult to achieve. Chiat/Day's NYC office, referred to as "Full Virtual," was often frequented by the firm's founder. He was the visionary behind the concept of "team architecture" and the new office design. His presence along with the smaller size and single floor configuration of the office may have acted to reduce the evolution (from the original concept) that occurred in Los Angeles. Even in NYC however, as with the LA office, some individuals and disciplines tended to occupy the same spaces day after day. Keeping the original concept alive without becoming entrapped in it is a delicate balancing game. It takes a strong commitment from senior management and the ability to articulate the vision.

The challenge, of course, is living the vision but also recognizing when it is not working and needs modification. LA's Modified Virtual office is illustrative. The Creatives were the only group originally planned to have a dedicated area. In time several other support functions acquired dedicated areas and certain individuals established dedicated workstations within those areas. That was not within the original nonterritorial office concept, but office managers must be willing to question whether it is a useful adaptation to particular circumstances—or simply a reluctance to consider new ways of working.

Unlike the NYC office, there was no place where the Traffic group in LA's much larger three-floored office could sit to see and interact with most others during the day. In NYC individuals could expect spontaneous interaction by sitting in the Clubhouse. In LA finding the individuals with whom Traffic and Production needed to interact represented a high personal cost in time and effort (particularly if individuals were not in their project rooms). Within their own area, interactions were easier. They could remain in one place and rely on telephone/e-mail messages to bring others to them (since others now knew where to locate them). The adaptation supported cross-disciplinary communication by giving anyone who needed to interact with these disciplines a place to go. Further because they worked amongst one another, intradisciplinary communication and learning among these disciplines was enhanced.

Interpreting Adaptations

Such adaptations to the virtual office should not necessarily be viewed as a system failure. The fact that most LA and NYC employees were not spending significantly more work time out of the office than they had prior to virtual office implementation does not mean that the virtual component was not working or was not successful. The virtual office has enabled individuals to become comfortable with remote technology. They were now better connected when traveling and better able to work from home when circumstances warranted. And they communicated better within the office. The virtual aspect has legitimized Creatives' and others' leaving the office to escape interruptions. The new officing has, in fact, very quickly pushed Chiat/Day up the learning curve of effectively using and deploying information technology.

The offices also represent highly flexible work environments. Jobs requiring more interaction and coordination were performed in a whole range of flexible office locations. For jobs requiring more concentration, the flexibility came from using the activity settings in the office in addition to different work places outside the office.

Overall Assessments

By implementing the team architecture and the virtual environment to support it, Chiat/Day was trying to accomplish multiple goals, including:

- enhance long-term client relationships by serving the client faster and better;

- encourage employee allegiance from discipline to account team and the total process;
- become flatter, less hierarchical and less status-driven;
- free senior employees from administrative tasks;
- allocate tools appropriately and raise technology competence of employees; and
- employee retention (good, productive employees).

In the short term, the new strategy did not appear to affect clients positively or negatively. They did like the concept of the project room. Seeing their project work displayed on the walls made them feel like work was occurring, and that they had a home within the office. Chiat/Day has not lost its biggest nor longest term clients since the virtual office implementation, and others have come and gone at a typical rate (NYC) or better (LA).

Many staff felt that the office was less hierarchical now, and that senior employees have been able to delegate more administration tasks, one of the major goals of "team architecture" originally. In both virtual offices, junior employees felt more connected to senior employees.

Even though all goals may not have been met, none have been negatively affected. Although individual steps in the advertising process appeared to Chiat/Day's management to be completed faster in the new environment, we had insufficient data to make an informed judgment. Considerable real estate savings were achieved, however, due to the reduction in space required. These savings were offset, in part, by higher technology costs to support the virtual office. Still, with the company's commitment to keep current with the latest technologies, the bulk of those costs likely would have been incurred regardless of the workplace system. At the same time the virtual office has brought tremendous publicity to the company, potentially making it more attractive to clients and employees.

Conclusion

Overall Chiat/Day's implementation of the virtual office did not appear to have drastically changed the work process. Employees already had considerable flexibility regarding where and when they worked. The biggest disadvantage of the virtual office was unexpected: a reduction in overall office socializing. An important lesson of this study was that changing the office environment affects a range of work processes. In combination with other environmental aspects such as office size or layout, some job functions may be enhanced while others are not. Adaptations to an original concept then, should not be discouraged. They should be considered a natural part of the evolving nature of new workplace strategies.

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